University of Alberta

The Psychopathology of School Violence

by

Stephen Peter Carter

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in

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ABSTRACT

Current research into school violence and serious learning disruptive behaviors often overlooks diagnosis as the first step to treatment. The present study involved a group of 54 junior high school boys who were identified by school administration and teachers as being violent in a school setting. The students, their parents and teachers were administered the appropriate forms of the Behavior Assessment System for Children (BASC) and half of the group was also interviewed using a structured interview form related to DSM-IV criteria. Results showed that significant "psychopathology" existed within the group of students and that concerns were not limited to externalizing or acting out behavior. It was also noted that of the three groups (students, teachers and parents), that the Mean T-Scores of the student group did not show significant elevations, while elevations were found for the teacher and parent reports. Despite this all three groups produced individual profiles which contained significant information. The BASC appears well suited for such a study and may also be used with younger children, as early intervention may be the key for prevention. Psychopathology is not the only factor when studying the problem of school violence, but one of many variables. Other variables include cultural, family, school and personal characteristics.

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CHAPTER 1

Introduction

The topic of school violence has risen to great heights in popularity in both the news and entertainment media. It is also seen to be a real and growing concern among educators, students and parents. Along with the concern, many explanations have been sought for the phenomenon of school violence, including sociological and cultural reasons, school structure and size, teaching and discipline methods, and family and upbringing related issues.

Many authors have produced curricula for preventing and reducing school violence, and it is presently a topic of great interest. In the midst of research in this popular area, examination of possible psychopathology of violent students has not been undertaken. It is known that a variety of mental health concerns exist for adolescents, and that to a great extent, psychopathology is an underlying factor in the behavioral patterns of children, adolescents and adults. The possible advantage of such an approach is that by understanding the etiology of mental health concerns, it becomes easier to design an appropriate treatment program.

Lacking information, school psychologists and school districts could spend great amounts of time and money designing omnibus prevention and treatment programs, to minimal avail. It is a fallacy to believe that one program could adequately meet the needs of everyone. For example, in a given group one student may have an impulse control problem, another limited social skills, a third, a thought disorder, the fourth may be

clinically depressed, with the remainder of the students having no clearly identifiable conditions but showing the effects of environmental and social factors.

It is the intent of this research to examine what, if any psychopathology is present in a group of "violent" adolescents, to see what measures may be of use for this task, and to see if one clear profile emerges, predictive of violent behavior.

The Problem of Violence

Violence in Society

The problem of violence in society extends far beyond adolescents in school. Bibby and Posterski's (1992) report on a survey of 4000 Canadian high school students states, "The source and stimulus of the violence that occurs in schools flows out of the culture that cradles the school. When there is less sanction of violence in society, there will be less violence in our schools" (p. 229). Others agree that school violence only mirrors the larger problem of violence in society (Evans & Evans, 1985; Lal, Lal, & Achilles, 1993), and is a product of society's long history of violence (Rich, 1992). Curcio and First (1993) contend that for many children schools are the places of greatest safety, with much more violence occurring outside of school than within. Sensational media reports and poorly designed studies which only look to confirm the school violence "crisis" may mislead public and professionals into believing that school is more dangerous than other parts of society (Furlong and Morrison, 1994).

Recently, an increase in the rate of violent crime convictions among 12 to 17 year-old Canadians between 1986 and 1994 has been noted (Hornick, Caputo, Hastings, Knoll, Bertrand, Paetsch, Schroder, Maguire, 1996). Smith, Bertrand, Arnold and Hornick

(1995) have found that 56 percent of junior and senior high students who responded to a questionnaire admitted to committing some form of delinquent behavior (primarily punching, kicking or slapping) another person in anger (47% during lifetime, 31% in past year). This study also reported 28 percent of the students surveyed admitted to carrying at least one weapon to school in the past year.

A recent report by the Canadian Panel on Violence Against Women (Marshall & Vaillancourt, 1993) stated, "Canadians do not have a real perception of the enduring repercussions of violence and how they experience and fear of violence" (p. 5).

Countless articles have been written on the problem of violence and abuse towards children in their own homes. Within this area, an important trend can be seen, that of complacency towards reporting suspected child abuse. This has been found to be true for teachers (Abrahams, Casey, & Daro, 1992; Lamond, 1989), school psychologists (Wilson & Gettinger, 1989), pediatricians (Hazzard & Rupp, 1986), and the general public (Dhooper, Royse, & Wolfe, 1991). It appears that secrecy and fear of litigation contribute to under reporting of both child abuse and school violence (Quarles, 1993).

While violence will be defined in the following section, Table 1 summarizes the forms of violence present in society in general. Although it could be successfully argued that all forms of violence listed in Table 1 can be seen to exist, the definition will be narrowed down for the purpose of this study.

Table 1
Forms of Violence Seen in Society (From Marshall & Vaillancourt, 1993, p.22)

Physical:	Slapping, shoving, hitting, mutilation, stabbing, assault, murder.
Sexual:	Rape, incest, unwanted sexual touching, date rape, harassment.
Psychological:	Shouting, swearing, taunting, threatening, degrading, demeaning, inducing fear.
Financial:	Withholding, diverting, embezzling, or controlling funds.
Spiritual:	Degrading one's beliefs, withholding means to practice, forcing Adherence to a belief system.

Violence in Schools

West (1994) stated that the media is to blame for public perception of adolescent and school violence. Such sensational stories are thought to sell newspapers, increase television news ratings, and make for popular dramatic entertainment. There appears to be the contradiction that while one part of society speaks of eliminating violence, the other part glorifies it through sports, media, and music (Bibby & Posterski, 1992). Despite this view that the media exaggerates violence among young, Hranitz and Eddowes (1990) maintain that violence has reached a crisis level in our society. They state that the problem of violence has escalated to such a point that "the Centers of Disease Control in Atlanta is studying the problem of violence as an epidemic" (p. 6). While others maintain that violence has always existed in schools, such assertions are more true of teacher-to-student violence from medieval times to the early twentieth century than they are of student-centered violence (Newman & Newman, 1980).

Bibby and Posterski (1992) found that 45% of the teenagers they surveyed knew someone who had been physically attacked at school. Literature specifically related to school violence focuses on topics of bullying (Besag, 1989; Smith & Thompson, 1991), gangs (Lal et al., 1993; Quarles, 1993), student-to-student violence (Curico & First, 1993;

Hranitz & Eddowes, 1990), and student-to-teacher violence (Evans & Evans, 1895; Rich, 1992).

American statistics on violence in schools are staggering. Rich (1992) stated that each year in the United States "there are 9,000 rapes, 12,000 armed robberies, 270,000 burglaries, and 204,000 aggravated assaults in schools. Moreover, an estimated 70,000 serious physical assaults each year are made on teachers" (p. 35). Similar statistics are not found for Canadian schools. However, youth crime statistics may give an indication of the severity of violence among Canadian youth. These statistics may be an underestimation of school violence since assaults in schools are often dealt with internally and never reach the criminal justice system. Alberta crime statistics found that between 1986-87 and 1992-93 youth crimes were seen to rise rapidly, sexual assaults rose 221% to 244 cases, assaults with weapons rose 144% to 491, and minor assaults rose 120% to 1240 (McConnell & McKeen, 1994). Statistics Canada indicated that between 1979 and 1991 arrests of youths for all violent crimes rose 139% to 26,827. For minor assaults between 1983 and 1991, arrests increased 250%, to 14,521 (McConnell, 1994). Despite the debate on whether violence is on the increase or not, and if it is, who is to blame, such American and Canadian statistics clearly point to a problem with violence for youth. Clearly, differing viewpoints exist as to whether youth violence is increasing or is just being documented and reported to a greater extent.

Furlong and Morrison (1994) cautioned that while violence is a problem, statistics on school violence may be misleading. Studies have generally been victim self-reports, that is questionnaires asking how often students have been victimized or asking students, parents or teachers their opinions about violence. Such studies tend to have a

preconceived bias in that they expect school violence to be a major problem. Furlong and Morrison (1994) also point to a recent study which shows fewer grade 10 students (8.1%) reporting feeling unsafe at school in 1990 than did in 1980 (12.2%).

Examining United States school violence figures and Canadian and Alberta youth crime statistics points to the seriousness of school violence. The use of term "school violence" found in American literature, tends to imply that all violent students are alike. There is a need to see if subgroups exist within the grouping of students referred to as violent. For example, is it possible to separate those who commit violent acts based on the presence, or absence, of an identifiable psychological condition versus those who commit violent acts for more sociological reasons?

CHAPTER 2

Review of the Literature

The Definitions of Violence

School violence is referred to in many different terms, with an even greater number of definitions. In the literature it has been referred to as delinquency (Gold, 1978), school crime (Wenk & Harlow, 1978), conduct disorder (Floyd, 1985), bullying (Besag, 1989; Smith & Thompson, 1991), in terms of gangs (Lal et al., 1993), and simply as violence (e.g., Curico & First, 1993; Quarles, 1993; Rich, 1992).

The term "delinquent" appears in the literature less often now than in the past. A dictionary definition of the term describes a delinquent as someone who fails to "do what duty or law requires" (Guralnik, 1977). This provides an overly broad definition which, when taken to an extreme could include littering and minor traffic offenses. Gold (1978) looks at the term in a different manner, stating that "delinquent behavior is an ego defense" (p. 37) used by young people to protect their self-esteem.

The term "school crime" is most often found in books written from an educational administration point of view (e.g., Gold, 1978). While such writings also used the term "violence" interchangeably with school crime, a major focus appeared to be on the "costs" of school violence and the legalities surrounding the issue. Vandalism is seen as a major component within all definitions in this area (e.g., Marvin, McCann, Connolly, Temkin, & Henning, 1976).

Description of gangs related to school violence was seen in both past (Marvin et al., 1976) and present (Lal et al., 1993) literature. Gangs were seen as a social

phenomena, and gang activities are thought to be increasing in schools. Three different types of gangs are described: Social gangs provide "tough" peer groups, yet rarely are they involved in criminal activities. Delinquent gangs are made up of closely aligned youths who join together to commit illegal acts for gain or profit. Violent gangs have the least stable membership of the three types, with driving motives being violence, financial gain and emotional satisfaction (Lal et al. ,1993).

Bullying is a term used more often to describe aspects of school violence in England than in North America. A detailed definition of bullying is given by Besag (1989, p. 4)

> Bullying is a behavior which can be defined as the repeated attack -- physical, psychological, social, or verbal -- by those in a position of power, which is formally or situationally defined, on those who are powerless to resist, with the intention of causing distress for their own gain or gratification.

Smith and Thompson (1991) agree with this definition, and divide bullies into three different types: Bullies, who are popular, outgoing, strong, easily provoked and who enjoy aggression. Anxious bullies, who are insecure, less popular than "bullies", and who have poor social skills. Bully/Victims, who are the least popular among their peers, who complain about being victimized while bullying others. Smith and Thompson (1991) also see temperament, low empathy, and poor social skills common to all bullying behavior.

The variety of viewpoints and definitions related to the term violence can perhaps best be described by the statement. "Violence is in the eye of the beholder" (Gammon, 1978, p.1).

Definitions can exist from the very broad, "Any incident that seriously disrupts the learning of students in any public or private school" to the very narrow, "Crimes against

persons which occur in public elementary school" (Marvin et al., 1976, p. 14). While the second definition is said to be narrow, it is also seen as vague in that "crimes against persons" needs further definition.

Floyd (1985) viewed violent acts within the school as fitting into the category of what was labeled as "conduct disorder". In this use of the term, conduct disorder was defined as, "a poor attitude toward authority, defiance of rules and regulations, fighting, vandalism, lying, stealing, and other antisocial behaviors" (p. 9). A definition such as this makes school violence primarily a student-teacher discipline issue.

One challenge faced in any study on school violence is the staff and student perception of violence. One study (Furlong, Babinski, Poland, Munoz & Boles, 1996) surveyed 123 school psychologists regarding their perceptions of school violence. The results showed that violence was typically not a problem, despite stating that much bullying and harassment existed. Violence was viewed by this group as to only include property crimes and physical assaults, especially those including a weapon. Similar results were obtained in a survey of 231 junior high school students (MacDonald, daCosta & Maynes, 1996) in which the majority of students appeared to view bullying, punching, hitting and grabbing as "normal" activities, which did not reduce their feelings of safety in school. The students also reported that the teachers and administrators were generally not aware of violent behaviors at school. Any study of school violence needs to establish a clear definition of violence to properly focus attention on the behaviors in question.

Table 2 shows a method of classifying and defining violence by the severity of the act. This method has a strong behavioral focus, looking at outward manifestations rather than considering the intent. The level of harm to the victim also seems ignored by

classifying acts such as having a weapon in the same category as serious as rape or murder.

Table 2

A Classification of Violence (From Curcio & First, 1993, pp. 8-9)

Gravely serious, violent acts of students:	
Suicide	Rape
Murder	Drive-by shootings
Stabbing or fatally wounding	Hate crimes
Possession of weapons on school property	Firing a gun in a crowded school corridor
Serious violent acts of students:	
Sexual assault	Extortion
Interracial incidents	Drug dealing and drug abuse
Vandalism of each other's property	
Potentially serious and violent behavior:	
Fist fighting	Taunting and intimidation
Wearing gang identification	Boys teasing and harassing girls
Gang membership and gang activity	Bullying younger and weaker peers

Quarles (1993) looked at violence from the point of view of who was responsible for such acts, and related school violence to gangs, substance abusers, ritualistic (satanic) cults, and vigilantes. This view of violence shows it to be primarily a social occurrence, related to group membership or lifestyle.

Modifying a definition of violence against women proposed by a United Nations declaration to refer to school violence leads to the following definition: "Any act ... that results in, or is likely to result in , physical, sexual, or psychological harm or suffering ... including threats of such acts, coercion or arbitrary deprivation of liberty" (Marshall & Vaillancourt, 1993, p. 8). While such a definition may be comprehensive and all inclusive, it presents terms too broad for the scope of this research.

Hranitz and Eddowes (1990) saw violence as "a pattern of behavior that involves direct aggression against another person" (p.4). They postulated that aggression could include psychological/emotional harm, beatings, forced sex, and homicide. This definition was developed to encompass both family and school violence.

Rich (1992) defined school violence in two ways, against property and against people. Rich's definition of school violence against people is "a sudden and extremely forceful act that causes physical harm or suffering" (1992, p. 35). Similarly, a definition provided by the Royal Commission on Violence in the Communications industry provide the following concise definition. Violence is an "action which intrudes painfully or harmfully into the physical, psychological or social well beings of persons or groups" (Thatcher, 1978, p. 218). Such definitions help to narrow down an operational definition of violence.

While many forms of violence are known to exist (as seen in Table 1), the problem of operationalizing a definition becomes one of selecting clear, measurable terms. While sexual assaults do occur in schools, they may be rarer and less likely reported than physical assaults. Financial and spiritual violence (as described on Table 1) may exist within schools as well, but is likely limited to acts of theft and covert prejudice. Psychological violence (including taunting and threatening) is perhaps the most common form found in schools. However, as school staff often get involved after the fact, it can (at times) be one student's word against another. The most clearly observable form of violence may be physical violence, which often gets the most immediate school staff involvement, and documentation by an administrator, which includes witnesses' interviews. "Minor" occurrences of physical violence are both relatively common in

schools and are often dealt with within the school, seldom involving police action. Rich's (1992) definition falls short of the intent of this study since the qualifier "sudden" is added. This term can be confusing and eliminates the notion of pre-meditated violence. Also useful in arriving at an operational definition is the definition of bullying which implies repeated acts (more than two) of violence towards another.

For the purposes of this study school violence will be defined as:

> **Physical violence, or the threat of it, or acts of significant psychological violence by one student towards another. Physical violence will include slapping, shoving, and hitting, while psychological violence will include taunting, threatening, degrading, and demeaning. Acts of physical violence will not include one time sudden reactions to a stressor presented by the victim (such as retaliation for constant pushing or unfair play in a physical education class). Acts of psychological violence will fall within the definition of "bullying" in that the offenses are ongoing rather that one-time.**

This definition is not meant in any way to down play the seriousness of actions omitted from the definition, it is simply an attempt to arrive at a working definition for the purpose of this study. The above acts are those often dealt with by school administators and are likely to be documented in discipline files. This definition provides administrators a clear description of the specific student behaviors defined as violent and minimizes subjectivity in selecting a sample as behavioral criteria are provided.

The Etiology of Violence

Theories of violence are found in the areas of psychology, sociology and social psychology. Psychological theories focus on interpersonal characteristics (e.g., Quay, 1980) while sociological theories focus primarily on the environmental conditions

associated with violence (e.g., Quarles, 1993). Most theories best fit into the area of social psychology in that environmental and intrapsychic factors are mutually considered. For the purposes of this study, the theories which follow are not grouped rigidly into one of the above three categories. After a historical overview of theories of violence, more modern theories will be presented, starting with those which are more sociological in nature, and ending with those that are more psychological.

Biological Theories of Violence

Gammon's (1978) review of biological theories of violence traced attempts dating back to the nineteenth century. Highlights of this review follow (pp. 5-6).

1876 Cesare Lombroso through a study of anatomy, with influence from Darwinian theory, characterized criminals as having a long lower jaw, flattened nose, and a sparse beard.
1877 Richard Dugdale examined the family history of degeneracy.
1916 Bernard Glueck related criminality to a "mental defect."
1942 Sheldon furthered the work of Kretschmer to classify 3 basic body types and give an associated description of personality. The mesomorph's temperament was seen to be the most prone to violent behavior.
1960's Montagu, Lorenz, Ardrey, and others attributed violence to an inherited animal instinct.
1975 Wilson and Sokol viewed aggressive behavior as a consequence of high density population and close living quarters.

Social Psychology Approaches to Violence

In the area of social psychology, studies of aggression examined a variety of causes for such behavior and postulated that aggression is an innate behavior; a reaction to aversive events; a learned social behavior; a response to frustration; a response to provocation; an imitation of media portrayals; or the result of a Type A behavioral pattern (Baron & Bryne, 1987).

Early experiments (Bandura, Ross & Ross, 1963), showed that children watching aggression on film are more likely to model aggressive behavior in their play. With violence being romanticized in the entertainment media, and more accepted in society in general, people are also more likely to act in a violent manner if they have witnessed others being rewarded for such behavior (Bandura, 1977).

Quarels' (1993) discussion of school violence looked primarily at characteristics of violent schools. Such characteristics included: location in poor urban areas, high crime rates and unemployment. The students living in this environment were predominantly from minority groups and were seen to be of relatively low ability and below average achievement. Quarels does examine student characteristics, but in an overly narrow way. All school violence was seen by Quarels to be caused by gangs, alcohol and drug abusers, cults, and vigilantes (which are "created" through media messages). Toby (1994) related school violence to "disorder", defined as the violation of conventional expectations about appropriate behavior in public settings as well as allowing property to lapse into disrepair. In a school setting, factors contributing to disorder included the separation of school and community, pressure to keep children in school longer, the lengthy legalistic process now required for discipline (so as not to violate individual rights), the blurring of the line between disability and misbehavior and the erosion of teacher authority.

Rich (1981) presented four theories of social deviance to explain school violence. The first theory was of social disorganization, in which school violence was thought to be caused by absent, or insufficient, school norms and institutional goals. Newman and Newman (in Baker & Rubel, 1980) made a similar point saying "violence originates among those who have no stake in society" (p.3), and that students often fall into this

group from feeling that their rights are denied by the school system. Similar are the anomie theories in which disadvantaged people were not able to meet common societal goals with their available means (they were said to be anomic). Innovative, at times illegal means were then used in an attempt to attain the societal "standard" (West, 1994). Such theories rest on the assumption that there are universal standards which all people aspire towards.

Rich next presents the conflict approach (theory) which views "society as a struggle of contrasting groups" (p.66) in which a delinquent group emerges to oppose the norms of society, often white middle class values. This view represents opinions of sociologists such as Karl Marx, where much of the conflict arises out of the principles of capitalism (West, 1994). West adds that a criticism of this approach is that it only views violence and crime at a macro level, examining the circumstances through which violence become part of a culture and does not explain the behavior of an individual (West, 1994).

Third, Rich described the labeling theory as a form of self-fulfilling prophecy. That is, once students are labeled as violent, they will tend to act in a manner to fulfill the label. This theory was based on the work of Howard Becker whose core belief was that society creates deviance. Becker stated that deviance is not related to the quality of an act, it is established from other people applying sanctions and rules to a set of people and identifying them as outsiders (Gammon, 1978). Labeling theory has been criticized as overly simplistic by making statements such as to stop youth from being violent we need only stop labeling them that way (West, 1994).

The fourth theory presented by Rich, differential association, states that both positive and negative behaviors are learned by association. Both labeling theory and

differential association theory fit into the area referred to as symbolic interactionism, which has the focus that behavior must be examined in relation to the social group one belongs to (West, 1994). This theory postulates that the behavior developed by a child will most likely represent that of their close peer group (Rich, 1981).

West (1994) views control theory as the best explanation of violence and delinquent behavior, yet adds that this theory is difficult to empirically prove or disprove. The basic premise of control theory is that "people are free to break the law unless restrained by social ties or bonds. The weakening of these controls (bonds) leaves the person free to deviate; their strengthening promotes conformity" (p. 92).

Marvin et al. (1976) presented an extensive list of factors contributing to school violence; yet, as do many of the previous theories, they did not include any discussion of possible psychopathology of violent students. Table 3 lists the factors seen to cause school violence.

Table 3

School and Non-School Factors Involved in School Violence (Marvin et al., 1976, p. 61).

School Factors	Non-School factors
Building size	Attitude - nothing can be done
Class size	Boy-girl triangles
Dreariness of school building	Community response to problem
Expectations of the school	Family feuds
Forced attendance	Ineffective juvenile justice system
Ignorance of due process	Lack of community awareness
Lack of an alternative to suspension	Lack of coordination of community services
Lack of due process	Lack of multi-cultural understanding
Lack of parent-educator unity	Lack of parental interest
Lack of professional unity	News media cause problems
Lack of student-teacher relations	Parents, community workers confront teachers
School response to problem	Police handling of students
Staff hostility, aggressiveness	
Staff inadequacy	
Educators unwilling to acknowledge problems	
Failure of administrators to report crimes	
Lack of sufficient commitment to problem	

Cultural factors, primarily poverty, lack of opportunity, discrimination and lack of cultural awareness are seen to strongly contribute to aggressive behavior of adolescents (Guerra, Huesmann, Tolan, Van Acker & Eron, 1995; Soriano & Soriano, 1994). Both cultural characteristics and societal conditions are viewed as important in understanding youth violence according to Staub (1996) who stated, "youth violence, when it is widespread, must also be a societal process." Horowitz and Kraus (1897) viewed school violence as the result of how the students were socialized within a violent subculture.

Interactional Views of Violence

Others provide a more balanced view related to the etiology of school violence. For example, Evans and Evans (1985) stated that "the perpetrator, the victim, their relationship, situational determinants, and the cultural context must all be considered" (p. 19). The violent student was seen to have the possibility of behavioral or psychological disorders, poor social skills, or weak impulse control. Likewise, Rich (1992) examined two variables, situational and personality factors and the interaction of the two. Situational factors included "the availability of weapons, the behavior of a potential victim, the presence of onlookers, as well as such pervasive factors as the level of frustration in the environment, and the extent of social approval in a particular subculture" (p. 36). Personality factors included motivation (was the violence done out of anger with a desire to cause pain, or was it a means to a different end, such as violence involved in robbery to obtain money), internal inhibition (if inhibition is greater than motivation, violence will not occur; alcohol and drugs can lower inhibition), and habit strength (if the previous acts of violence were reinforced, the more likely future violence will occur). Rich also commented on the presence of personality disorders in violent students, saying, "personality disorders have long been considered basic causes of delinquency and violent behavior. Some investigators concluded that personality disorders may be a necessary, but not sufficient condition to produce violent behavior" (1992, p. 36).

Quay (1980) viewed personality characteristics to be very important in violent behavior. Violence and behavioral problems were viewed to be reducible to one of four major groups of characteristics: conduct disorder, personality disorder, inadequacy-immaturity syndrome, and socialized or subcultural delinquency.

Quay's description of conduct disorder (fighting, assaultiveness, destructiveness, quarrelsomeness, destructiveness of property, defiance of authority) is seen to be similar to the DSM-IV (APA, 1994) definition.

Quay's category of personality disorder was described as "social withdrawal, shyness, anxiety, crying, hypersensitivity, chronic sadness, seclusiveness, worrying, timidity, lack of self-confidence and inability to have fun" (1980, p. 130). While these behaviors are more often associated with withdrawal, Quay maintained that, when coupled with impulsiveness, they can lead to violence. The DSM-IV (APA, 1994) stated that it requires "relatively unusual circumstances" to attribute a personality disorder to someone under the age of 18, and that such a diagnosis will often change as children reach maturity. It appears that Quay's definition of personality disorder could possibly fit into diagnostic categories such as Mood (depressive) Disorder, Generalized Anxiety Disorder, or an Adjustment Disorder.

The inadequacy-immaturity syndrome was described as, "preoccupation, short attention span, clumsiness, passivity, daydreaming, sluggishness, drowsiness, excessive giggling, messiness, and being easily flustered and confused" (Quay, 1980, p. 130). In contemporary terms, what Quay may have been describing is Attention Deficit/Hyperactivity Disorder.

Socialized, or subcultural, delinquency was seen as a response to environmental circumstances. The peer group and socialized experiences led to the development of violent behavior in the absence of a psychological disorder. Quay (1980) saw such behavior as a "normal" response to the environment in which the children are raised.

Brooks (1992) viewed gaining self-esteem as a developmental process for children and adolescents. Many maladaptive coping strategies were seen to exist for those children who do not feel good about themselves, including being aggressive and bullying. Children who use aggression in this manner were viewed to cover their own insecurities by scapegoating or belittling others.

A developmental-ecological perspective was advocated by Tolan, Guerra and Kendall (1995) in which intervention for reducing the risk of violent behavior was linked with developmental research aimed a finding the best combination of risk factors and developmental stages at which to intervene. For example, it has been found that in early elementary school, childhood aggressive behavior is predictive of adolescent antisocial and aggressive behavior, and that a key time for intervention is to begin by the first grade since there is a marked increase in aggressive behaviors between grades one and two.

As with many other areas of psychology, the "nature-nurture" debate extends to the area of adolescence and school violence. Both sides of this debate were presented at an APA Science Directorate's Weekend on Violence and Aggression (Azar & Sleek, 1994). Gerald Patterson was quoted as describing set stages that anti-social and aggressive children move through, while David Rowe presented a strong case for genetic influences to be the predominant factors. Genetic (e.g., McGuffin & Tharpar, 1992; Rutter, MacDonald, Le Couteur, Harrington, Bolton & Bailey, 1990; Thurber & Snow, 1990) neuropsychological (e.g. Giancola & Zeichner, 1994; Mateer & Williams, 1991) and cognitive (e.g. Seguin, Pihl, Hardin, Tremblay & Boulerice, 1995) factors have all received attention in examining violence and aggression.

Risk-taking behaviors, including violence have also been viewed as taking place more commonly during adolescence than during other phases of development (Tonkin, 1987). Risk-taking behaviors were seen by Tonkin (1987) to range from subtle sabotage of daily activities to violence, self-mutilation and suicide. While no one factor was presented to explain the origin of risk-taking behavior, an interactional model was proposed, which stated:

> Factors influencing action decisions in adolescence are of two types, those affecting the level of risk desired and those affecting the level of risk perceived. Sensation seeking may influence the feedback loop by modifying motivational state or by affecting the perceptual skills that depend on level of arousal. Problem behavior theory suggests that the balance between desired and perceived levels of risk is influenced by the intrinsic value of the behavior and the age of introduction of adult behaviors into adolescence (Tonkin, 1987, p. 215).

Noam and Houlihan (1990) used Loevinger's theory of ego development to research adolescent psychopathology. This theory viewed the personality to be constructed around the ego (which is the "master trait"). People are seen to go through stages in which interaction with their environment changes. The first stage, the preconformist, was seen to be characterized by individuals who are not able to delay their gratification of needs, who tend to act impulsively, have little self-awareness, and whose interpersonal relationships are exploitative and dependent. The second "conformist" state was thought to be the average stage of most adults and many adolescents. It was identified by gaining some self-awareness and capacity for delay of gratification, yet still having a stereotypical view of the world, and a focus on being accepted by their peers. The final, "postconformist" stage, showed a high level of self-awareness, flexibility in outlook, and relationships based on respect for individual differences and mutuality (Noam

& Houlihan, 1990). It was hypothesized by Noam and Houlihan (1990) that while ego development could not "shield" a person against psychopathology, those with higher ego functioning and less difficulty with impulse control would be diagnosed as higher functioning, or be seen as having less severe psychopathology.

While the concept of ego development is a relatively "dated" psychological notion, Noam and Houlihan's (1990) description points to the need of including measures of impulse control when examining psychopathology.

Many different theories have been proposed to address school violence, including ones which view some degree of psychopathology to contribute to violent behavior. The more comprehensive theories acknowledge both cultural and personal factors to have influence on such behavior.

The Research on School Violence

A computer search of PsychLIT Database (APA, 1993) for the time period ranging from January of 1987 to March of 1994 produced only 10 references to the term "school violence". Most of these studies referred to school prevention programs and a discussion of the apparent increase in school violence. A similar search of the ERIC Database (January, 1982 - March, 1994) revealed 48 references to school violence. For the most part such articles (1) discuss the increase or prevalence (or perception of an increase) of school violence, (2) discuss factors which must be taken into account when studying the problem, (3) propose action which can be taken at the school level to reduce violence. Literature which presents statistics does so by reference to government studies (frequently cited is the National Institute of Education's 1978 report, *Violent schools-safe school:*

The safe school study report to Congress), or based them on surveys of school districts or school administrators. One example of research using case studies was also found. In another, the author conducted several interviews with "experts" in the field (Miedzian, 1991). Besag (1989) commented on the lack of research in the closely related area of bullying stating:

> With so few studies available, the contamination of cross cultural effects, the differences in terminology, the array of research designs employed and, above all (the fact we cannot lose sight of) that we only know what young people are willing to tell us, it would be foolhardy, at present, to extrapolate anything from the research so far (pp. 6-7).

A report by the United States Department of Justice (Toby, 1983) summarized knowledge related to school violence. It was found that students and teachers are more likely to lose property in school through theft than through robbery; assaults are more violent in large urban schools; and assaults and robberies are twice as prevalent in junior high schools compared to high schools. Quarles (1993) agrees that junior high schools experience more violence than do high schools.

Other reports have shown that both administrators (Boothe, 1993) and school districts (North Carolina Governor's Office, 1993) believe that school violence was increasing. These studies traditionally use survey instruments to collect their data.

A 10 year longitudinal study on bullies by Olweus in Norway and Sweden found that those who were identified as bullies at ages 13 to 15 were more likely to be later involved in antisocial and criminal activities (Besag, 1989). Smith and Thompson furthered research started by Olweus using a questionnaire to study bullying from the standpoint of victims and bullies. They found that up to 20% of the students had experienced being bullied, and 10% bullied others (Smith & Thompson, 1991).

Bibby and Posterski (1992) used a questionnaire format and structured interviews in their Canada wide study of teenagers. While the study was not designed specifically to examine school or youth violence, results related to this topic emerged. Forty percent of teenagers (nationally) responded that they thought gangs were a very serious problem, and 36% thought the same of school violence. Thirty-five percent knew of a "real" person (not through media or entertainment) who was a victim of gang violence, 45% knew a victim of school violence.

Hranitz and Eddowes (1990) described school violence by drawing on research not specifically related to school situations. They cited studies which showed negative child behavior was related to poor relationships between the parent and child, and that convicted criminals often had parents who were also criminals. Evidence of the increase of violence in general was also seen by the increased number of women's shelters in the country. It will be this form of related research that will now be discussed in examining school violence.

One such study examined the consequences of neglect and physical abuse on school aged children (Kurtz, Gaudin, Howing, & Wodarski, 1993). Their study examined 47 neglected, 22 physically abused, and 70 comparison children, who ranged in age between 8 and 16 years old. All abused/neglected children in the study had reportedly been abused within the last 18 months and presently resided in a foster home for at least the past 3 months. A battery of instruments was administered to the children and their parents, teachers, to the caseworkers of maltreated children (Kurtz et al., 1993). These tests were readministered 6 to 12 months after the first administration. The tests used in the battery included the Child Behavior Checklist, Jesness Manifest Aggression Scale,

Piers-Harris Children's Self Concept Scale, and the Woodcock-Johnson Scales of Independent Behavior. School behavior and achievement were also measured. Kurtz et al. (1993) attempted to assess the overall functioning of the children in five areas: school adjustment, peer adjustment, self-adjustment, home adjustment, and delinquency. ANCOVA's were used to determine differences between the control group and the two "maltreated" groups. Delinquency and problem behaviors were both found related to stressful life events for the children. In general, "maltreated school age children were found to function more poorly (i.e. aggressive behavior, poor social skills) than their non-maltreated peers on a variety of measures (Kurtz et al., 1993, p.101), yet they showed small but steady gains towards more socially acceptable, less violent behaviors once they were removed from the abusive situation.

Slaby and Guerra (1988) studied cognitive mediators of aggression in adolescent offenders. The aim of the study was to develop "an integrative model of social-cognitive development that explored both the processes and the content of cognition that may serve to mediate aggressive behavior" (Slaby & Guerra ,1988, p.580). The sample consisted of high school students divided into high and low aggressive groups by teacher rating, and of "antisocial" teenagers from a state juvenile correctional facility (who were incarcerated for having committed one or more violent acts).

Important to their work was a model which proposed that biases and deficits in processing social information led to aggressive behavior. They measured this process by using a modified form of the Interpersonal Problem Solving Analysis, which presented two hypothetical stories where an unknown, same-sex, individual was somehow interfering with a goal (e.g. would not give the person a baseball bat to practice with, although the

person with the bat was not using it). Questions are then asked related to defining the problem, goal selection, what additional information may be needed, number of solutions possible, choice of the best and second-best solutions, and consequences associated with solutions. They found that violent and high aggressive teens were "most likely to solve social problems by: defining problems in hostile ways; adopting hostile goals; seeking few additional facts; generating few alternative solutions; anticipating few consequences for aggression; and choosing few best and second best solutions that were rated as effective" (Slaby & Guerra, 1988, p.580). Additionally, an 18 statement beliefs questionnaire was developed which measured the following aggressive beliefs: Legitimacy of aggression, aggression increases self-esteem, aggression helps avoid a negative image, victims deserve aggression, and victims don't suffer. Violent and high aggressive teens endorsed these beliefs to a significantly higher level than did the low aggressive teens.

Slaby and Guerra (1988) concluded that significant differences occured in cognitive mediational patterns between low and high aggressive children. Sex differences were also found with females being seen as better problem solvers, yet endorsing more strongly the belief that victims deserved what they received.

To summarize, studies were not found linking adolescent psychopathology to school violence. In fact, few statistical studies of school violence exist. School violence studies found discuss definitions, prevalence, and prevention of school violence. Statistics were often limited to type and number of offenses occurring. Related research on bullying showed a trend for bullies to exhibit antisocial behavior as adults. Other research, which was not school specific, showed negative behavior in children to be related to their relationship with their parents or parental characteristics. Highly aggressive and violent

teenagers were seen to have fewer problem solving skills and different perceptions of the legitimacy of violence than did non-aggressive teens.

With the limited research available in school violence, the area of psychopathology will now be examined to provide insights to violent behavior in teenagers.

Developmental Issues in Psychopathology

One longitudinal study examined psychiatric disorders in a group of children taken from the general population from 4 to 11 years of age (Verhulst, Eussen, Berden, Sanders-Woustra, & Van Der Ende, 1993). Parents completed the Child Behavior Checklist for their children at 2 year intervals over a period of 6 years. Other measures were also used (Diagnostic Interview for Children and Adolescents; Wechsler Intelligence Scale for Children - Revised (short form); Children's Global Assessment Scale). The children were grouped as "externalizing" (for those whose problem areas reflect conflicts with other people) and "internalizing" (for those whose problems reflect internal distress). They found that those in the externalizing group, which included attention-deficit hyperactivity disorder (ADHD), oppositional disorder, or conduct disorder showed the greatest persistence of psychopathology over time. This study suggested that aggression may be an enduring characteristic for children and adolescents.

Korenblum, Marton, Golombek, and Stein (1990) conducted an 8 year study, the Toronto Adolescent Longitudinal Study, which followed the progress of children from 10 to 18 years of age. It began with a non-clinical group of 72 randomly selected students (36 boys, 36 girls) and after 8 years 59 subjects remained in the study (30 males, 29 females). While Korenblum et al. (1990) found that disturbed personality functioning

could be identified throughout adolescence, they noted a tendency for the actual diagnoses to change over time. The most stable group, in terms of unchanging over time, was seen to be those diagnosed as paranoid, schizotypal or schizoid. Other changes were summarized as follows:

> At age 13, disturbed adolescents tend to distribute themselves into two major groups: the majority appear to be anxious or fearful, whereas a smaller segment are characterized by antisocial tendencies. At age 16, they distribute themselves quite differently: roughly one third are antisocial, another third fall into a mixed group of atypical and/or immature types, and there are smaller segments of odd, erratic, and anxious types. At age 18, the largest group falls into the histrionic, borderline, narcissistic cluster, whereas a significant minority retain a more diffuse, less well defined pattern...For the antisocial cluster there was consistency from early to middle adolescence, but not from age 16 to 18 (Korenblum et al., 1990, p. 395).

The work of Korenblum et al. (1990) agreed with previous sources (Toby, 1983; Quarles, 1993) that junior high students may show the most aggressive behavior, but also that such behavior may be developmental in nature and not reflect a true personality disorder. If it was reflective of an established personality disorder, the decrease in "antisocial" personalities would not decrease from 30% of the 13 year-olds, and 35% of the 16 year-olds to only 4% of 18 year-olds (Korenblum et al., 1990). Most from the antisocial group were seen to drift towards the histrionic, narcissistic, and borderline cluster.

It has recently been argued that the DSM definition of adult Antisocial Personality Disorder (APD) and the previous definition of psychopathy represent distinct conditions, whose origins can be seen in childhood. APD is more closely related to environmental factors, while psychopathic traits "have been positively correlated with measures of

narcissism and negatively correlated with measures of anxiety" (Frick, O'Brien, Wootton & McBurnett, 1994, p.700.).

Much has been written linking upbringing and genetics to development of behavioral problems, personality disorders, and violence. As previously mentioned, Kurtz, et al. (1993) found that delinquent behavior was related to physical abuse and neglect. Similarly, Shearer, Peters, Quaytman, and Ogden (1990) found antisocial personality disorder (APD) to be common among hospitalized female borderline patients who reported a history of physical abuse. Those who had a history of sexual abuse more often showed the additional symptoms of eating disorders and drug abuse.

Weintraub's (1991) longitudinal study of 474 children examined children who were at risk for alcoholism (having a parent with a personality disorder) and those at risk for both alcoholism and a personality disorder (due to a parent having both). The group with both risk factors were seen most likely to develop acting out conduct problems and to show aggression at school. The group with only one risk factor (personality disordered parent) was seen more likely to act out and show aggression than was the group with no risk factors, but was less than those in the two risk factor group. Others have also related parental APD and substance abuse to the development of conduct disorder (CD) or oppositional defiant disorder (ODD) in children (e.g. DSM-IV, APA, 1994). Parental consistency, supervision and discipline were also seen to contribute to the development of these disorders (Frick, Lahey, Loeber, Stouthamer-Loeber, Christ, & Hansen, 1992).

While McGuffin and Thapar (1992) used twin studies to find a definite genetic link to adult criminality, they also found little genetic influence in juvenile delinquency. They concluded that juvenile delinquency was more attributable to family factors, while adult

criminality may be linked more to genetics. This study indirectly called into question the validity of conduct disorder as a necessary factor in diagnosing APD in adults. Other studies suggested that both environment and heredity contribute to adult APD but were equally puzzled at the apparently low genetic component to conduct problems in youth found in both twin and adoption studies (Rutter, Macdonald, Le Couteur, Harrington, Bolton, & Bailey, 1990).

In an examination of perinatal health and birth complications, Kandel (1992) concluded that "birth complications are strongly related to violent criminal offending, especially violent offending ... (however) found no relationship between perinatal factors and the psychiatric diagnosis of antisocial personality" (p. 916). Kandel maintained that while violence/criminality and APD are often viewed synonymously, they may be very different from each other.

A confounding factor in relating Attention Deficit Disorder (ADD) and Attention Deficit Hyperactivity (ADHD) to later APD is possible misdiagnoses of these childhood conditions. Lilenfeld and Waldman (1990) compared the diagnostic frequencies of ADD/ADHD to those of Conduct Disorder in the United States and the United Kingdom. They found ADD/ADHD to be diagnosed fifty times more often in the United States. While the difference found here may be due to differing criteria between the DSM-III-R and the ICD-9, there may be more important considerations. It was speculated that, "because of the extensive diagnostic overlap of ADHD and CD, an unselected sample of ADHD children in the U.S. were likely to exhibit a high rate of antisocial symptoms upon follow-up and a family history of disorders such as (APD), alcoholism, and somatization disorder" (Lilenfeld & Waldman, 1990, p. 702).

Cadoret and Stewart (1991) examined the relationship between ADHD and parents with criminal behavior. They found that "ADHD does not appear to be related directly to adult (APD), but indirectly through a set of aggressive behaviors (p. 79). Their finding concluded that parental aggressivity, not ADHD, was a precursor to adult APD. Klien and Mannuzza (1991) disagreed somewhat with this point of view. They reviewed studies on the long-term outcome of hyperactive children and concluded that while dysfunction was noticeable less in adults, cognitive deficits and behavioral problems persist, including APD and criminality. ADHD alone was not seen to predict such behavior, but a worse prognosis was noted for those with intellectual weaknesses. Others have speculated that in many cases ADHD and CD are found co-existing (Biederman, Faraone, Knee, & Munir, 1990), or are points along a continuum (Faraone, Biederman, Keenan, & Tsuang, 1991).

In summary, research has related adolescent psychopathology and aggression to delays in ego development (Noam & Houlihan, 1990), and to children with externalizing problems (ADHD, ODD, CD) (Verhulst et al., 1993). Others found that diagnoses of psychopathology were very unstable, especially during later adolescence (Korenblum et al., 1990). Such studies found that early to middle adolescence (Junior High School), may show the greatest degree of violence, yet perhaps more for developmental reasons than for reasons of psychopathology. As with most other issues in personality and development the nature-nurture issue showed violent behavior to have both learned (Kurtz, et al., 1993; Shearer et al., 1990) and genetic (Cadoret & Stewart, 1991; Rutter et al., 1990) components. Kandel (1992) pointed to the possible need to examine violence/criminality separately from personality disorders. Some controversy exists whether childhood

conditions such as ADHD which may manifest in violent behavior are predictive of adult violence. The focus will now narrow to examine specific issues of adolescent psychopathology and violence.

Adolescent Psychopathology and Violence

Of the few studies which have been done to measure the prevalence of emotional and behavioral disorders in adolescence, it appears that "significant numbers of adolescents have mental health problems" (McGee, Feehan, Williams, Partridge, Silva, & Kelly, 1990, p.611). McGee et al. (1990) review of these studies is presented in Table 4.

Table 4

Studies of the Prevalence of Adolescent Psychiatric Disorders

(McGee et al., 1990, p. 611).

Year	Age Group	Prevalence		Author
1967 Australia	14 - 21	19% Boys	22% Girls	Krupinski et al.
1974 U.K.	13 - 14	21% Boys	14% Girls	Leslie
1976 Isle of Wight	14 - 15	21%		Rutter
1987 Ontario	12 - 16	19% Boys	22% Girls	Offord et al.
1987*		18%		Anderson
1988* Puerto Rico	4 - 16	16%		Bird

**Used DSM-III Criteria*

A longitudinal study was conducted by McGee et al. (1990). They started with 1,037 three year-old children in New Zealand and reassessed the sample every 2 years. When the sample was 15 years of age 969 subjects remained. Assessment was based on DSM-III criteria. At age 11, children were interviewed using the Diagnostic Interview Schedule for Children(DISC-C). The DISC-C was modified (shortened) for use at ages 13 and 15, with additional questions added to measure conduct disorder. Overall, the

following disorders were assessed: anxiety disorders, depressive disorders, attention deficit disorder (with and without hyperactivity), conduct and oppositional disorder, and eating disorders. Additionally, each 15 year-old was interviewed to measure their level of social competence, and parents completed the Revised behavior Problem Checklist. Table 5 presents the results of this study. While their overall results found approximately 22% of the adolescents to have a DSM-III mental disorder, only a small percentage was seen to have aggressive conduct disorder (with no girls receiving this diagnosis). Huselid and Cooper (1994) reported that externalizing problem behaviors in males was related to "traditional" views of gender roles. However, Borum (1996) has also noted that among adults, rates of violent behavior did not differ significantly between men and women with mental disorders. Table 5 also indicates that significant percentages of adolescents with mental disorders also had poorly developed social skills, with limited social competence accompanying such diagnoses as depression, attention problems and conduct disorder.

Table 5

Prevalence of Individual Disorders Including Social Competence Measures (From McGee et al., 1990, pp. 615-616).

Disorder	% Prevalence	% Low Competence
Overanxious	5.9 ± 1.5	
		26%
Separation anxiety	2.0 + 0.9	
Simple phobia	3.6 ± 1.2	
		21%
Social phobia	1.1 + 0.7	
Major depressive episode: current	1.2 ± 0.7	
Major depressive episode: past	1.9 ± 0.9	40%
Dysthymia	1.1 + 0.7	
Attention deficit disorder	2.1 + 0.9	67%
Conduct disorder: aggressive	5.7 + 1.5	69%
Conduct disorder: non-aggressive	1.7 ± 0.8	59

Two recent studies were conducted examining mental disorders among prison inmates. Abram and Teplin (1991) presented the concern that many prison detainees would be better served by mental health treatment than incarceration. They found that, "most subjects with a severe mental disorder (schizophrenia or a major affective disorder) also meet criteria for a substance abuse or antisocial personality disorder" (p. 1036). Hodgins and Cote (1990) studied Quebec inmates using a structured interview, the Diagnostic Interview Schedule. They found that 57% of their sample had alcohol or drug abuse and/or dependence; 23% suffered from a major mental disorder (Organic brain syndrome, schizophrenia, schizophrenoform disorder, bipolar disorder, or major depression); and 13% of the inmates were diagnosed with a less severe mental disorder. Disorders involving violence such as APD were included in both groups due to its

frequent co-morbidity with major mental disorders. Sixty-two percent of the prison group were seen to have a diagnosis of APD.

The Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV) lists conditions which are associated with aggression and violence. These are summarized in table 6.

Table 6

DSM-IV Categories Involving Violence

- Conduct Disorder
- Oppositional Defiant Disorder (verbal aggression)
- Amphetamine, Cocaine Intoxication (anger)
- Inhalant, Phencyclidine Intoxication (assaultiveness)
- Sedative, Hypnotic, or Anxiolytic Intoxication (aggressive behavior)
- Schizophrenia (note: there is conflicting evidence with regard to whether the frequency of violent acts is greater than in the general population (DSM-IV, p.280).
- Delusional Disorder - especially Persecutory and Jealous Types (Note: usually begins later in life)
- Brief Psychotic Disorder
- Manic Episode
- Dissociative Identity Disorder
- Paraphilias: Frotteurism, Pedophilia (if over 16)
- Intermittent Explosive Disorder
- Adjustment Disorder - With Disturbance of Conduct / With Mixed Disturbance of Emotions and Conduct

While the DSM-IV states "Personality Disorder categories may be applied to children or adolescents in those relatively unusual instances in which the individual's particular maladaptive personality traits appear to be pervasive, persistent, and unlikely limited to a particular developmental stage..." (p. 631) for the purposes of this study personality disorders will not be considered.

The Assessment of Violence

In dealing with an adult criminal population, a great deal of importance rests on the ability to assess the risk of violence. While many years of attempts at risk assessments have been made, Grisso and Tomkins (1996) argued that psychology has not yet reached the point of accurately predicting the likelihood of violence. Borum (1996) saw the area of prediction of violent behavior as "One of the most complex and controversial issues in behavioral science" (p.945). Borum (1996) has noted that mental disorder may be a significant risk factor for violent behavior. Schopp(1996) argued that risk assessments need to be flexible, changing from one situation to another and that relationships between psychological process and impairments need to be considered in the context of the environment.

Evans and Evans (1985) spoke of the need to assess home, community, school and personal factors related to school violence. Aggressive school behaviors were seen to be context specific (Gable, Hendrickson & Sasso, 1995). Gable, et al. (1995) presented a triangulation process by which record reviews/interviews, observation and assessment were all used for violent children.

Teacher ratings have been found to be a robust method of predicting antisocial and aggressive behaviors in children (Quinn, Mathur & Rutherford, 1995).

The Behavioral Assessment System for Children (BASC) is seen to be a "well designed and useful set of measures for the assessment and identification of school-age children with emotional disturbances and behavioral disorders (Sandoval and Echandia, 1994, p. 419). The BASC is seen to make differential diagnoses according to DSM criteria as well as to be useful in diagnosing problems under the United States' Individuals

with Diabilities Education Act (Flanagan, 1995; Merenda, 1996). It has also been recognized by Alberta Education as a useful tool in diagnosing Severe Disruptive Behavior Disorders (Alberta Education, 1996). Overall, the BASC appears to be a suitable instrument for examining underlying possible psychopathologies among violent students.

The Need For Further Research

To summarize the research findings presented so far, much literature exists attesting to the seriousness, and prevalence, of the problem of school violence. While some feel that this problem has been exaggerated by media coverage, there appears to be general agreement that school violence is a serious issue.

Many forms and definitions of violence exist. The current literature in the area was reviewed, arriving at an operational definition for school violence. Many disciplines have attempted to study violence including psychology and sociology. Views exist that school violence is a learned behavior, due to peer associations, or dysfunctional upbringings. Others felt that school violence was a manifestation of violence in society. Section 5 addresses developmental issues related to psychopathology, and casts some doubt on the use of terms such as personality disorder, since psychopathology appears to be very fluid among adolescents. While more violence is thought to exist in junior high compared to high school, this changeable nature of personality in early to mid-adolescence could lead to many "false positive" diagnoses, if a junior high school group was studied, compared to using a high school sample.

Little "statistical" research exists on school violence. Of the existing studies, most focus on prevalence of violence. One study that is most comparable in design to this present study, examined cognitive mediators of aggression in adolescent offenders (Slaby & Guerra, 1988). Studies on school violence, aggression, and psychopathology point to the need for measuring personality characteristics and adaptive behavior (both positive and negative dimensions), rather than examining either factor in isolation.

Given the above background information, the research questions that will be addressed in this study are as follows:

1. What significant elevations are noted on the parent, teacher and self-report versions of the Behavior Assessment System for Children (BASC) for the sample of violent students?

2. Are identifiable patterns of scale/subscale elevations identifiable on the:
   A) BASC Parent Rating Scale
   B) Teacher Rating Scale
   C) BASC Self-Report of Personality

3. What was the prevalence of psychopathology found in the sample of violent students?

4. What percentage of students exhibit co-morbid psychopathology, as indicated by multiple DSM-IV diagnoses or multiple BASC elevations?

5. What is the inter-rater reliability between the parent, teacher and student forms of the BASC on comparable scales and subscales?

6. How do BASC profiles (teacher, parent and student) contribute to an overall clinical description of a student? (Case Study Example)

CHAPTER 3

Research Design and Procedures

Sample

School Boards throughout Alberta were approached to participate in the study. While a sample of 100 violent junior high school students (50 boys, 50 girls) was sought, only 15 full data (BASC teacher, parent and self-report) sets were gathered for girls while 54 were obtained for boys. The sample of 15 girls was seen to be insufficient for statistical analysis. The final sample consisted of 54 male students selected by school administrators and/or counsellors, based on the previously stated operational definition of school violence:

> Physical violence, or the threat of it, or acts of significant psychological violence by one student towards another. Physical violence will include slapping, shoving, and hitting, while psychological violence will include taunting, threatening, degrading, and demeaning. Acts of physical violence will not include one time sudden reactions to a stressor presented by the victim (such as retaliation for constant pushing or unfair play in a physical education class). Acts of psychological violence will fall within the definition of bullying in that the offenses are ongoing rather that one-time.
>
> The added criteria will be that such (documented) behavior has existed within the past 6 months, and concerns still exist regarding violence from the student.

Fifty-four complete BASC sets were obtained for the sample (junior high boys in grades 7, 8 and 9), with 22 full sets of SIDAC-R interviews completed with a subset of the above 54 subjects. Table 7 describes the sample by region and school size.

Table 7

Demographic Characteristics of Sample - Percentage Sample Composition (N=54)

	School Location		
School Size	Urban	Suburban	Rural
0-300 Students	15	30	9
300-650 Students	20	15	11

Administrator nomination is thought to be a valid form of selection since previous studies (e.g., Slaby & Guerra, 1988) have found such ratings to correlate highly with measures of aggression.

The use of junior high students rather than high school students was seen as a suitable trade-off. While junior high students may not have "fixed" personalities, violent students are much more likely to still be in the school system at the junior high level, than would be found in high school. There may be a greater likelihood that the students will be better known to the teachers and administration at a junior high level, increasing identification of violent behavior, and strengthening responses on teacher rating scales.

Method

This study followed a posttest-only control group design proposed by Campbell and Stanley (1966). The use of a standardized test instrument, such as the the BASC (which included Canadian students in the normative sample), enables the normative group to be used for the test as a control group. The BASC sample was drawn from 116 test sites across the United States and Canada. The publishers of the BASC see it to be well suited to research on childhood behavior disorders and psychopathology. Three Canadian cities were used in the standardization sample. The normative group was weighted within

gender "so that the distributions of race/ethnicity, and for the PRS, parental education would match recent (1988) U.S. population (Reynolds & Kamphaus, 1992)". Normative groups sizes for the adolescent form of the BASC were N=809 Teacher Rating Scale (TRS), N=1090 Parent Rating Scale (PRS) and N=4448 Self-Report of Personality (SRP). Previous studies, which examined the presence of mental disorders among a specific population (Abram & Teplin, 1991) or among adolescents in general (McGee et al, 1990) only utilized descriptive statistics.

After the study was described in detail to school and system administrators, principals sent home a letter to the parents of possible participants. This letter described the study in detail, provided telephone numbers to contact the researcher, and included a permission slip and an addressed, stamped envelope to return the consent form. Once the permission slips were returned, the student was administered the BASC-SRP at school, while BASC-PRS were sent by mail to the parent, with another return envelope. Teachers were given a similar letter and permission slip as used with the parents and they completed the BASC-TRS at school. The SRP takes approximately 30 minutes, the TRS and PRS take 10 to 20 minutes to complete. All participants were informed of the voluntary nature of their participation in the study.

Over 50 junior high schools (province wide) were approached. While permission was obtained with relative ease from central office administrators, approximately 35 school principals declined to participate in the study. The most common reasons for non-participation were that there were no students who fitted the definition of "violent" as outlined previously, or that the principal was concerned regarding how such a request would be perceived by the parent. Appropriate cover letters describing the purpose of the

study were cleared through the Educational Psychology ethics committee at the University of Alberta prior to beginning research and can be found in Appendix I.

Evaluation Instruments

The Behavior Assessment System for Children (BASC) was the primary instrument used in this study (Reynolds & Kamphaus, 1992), with parents, teachers and students. Approximately half of the sample also completed a structured interview, the Structured Interview for Diagnostic Assessment of Children – Revised (SIDAC-R). A copy of the SIDAC-R is found in Appendix IV. The BASC, which has an adolescent form (for 12 to 18 year-olds) is said to be a multimethod, multidimensional approach to evaluation. It is multimethod in that many related forms exist: the SRP, PRS and TRS. The multidimensional aspect is seen in the BASC scales, which measure several aspects of behavior and personality (including adaptive and clinical dimensions). Table 8 summarizes the areas measured by the parent, teacher, and self-report forms of the BASC.

Table 8

Composites and Scales in the BASC

Teacher & Parent Rating Scales	Adolescent Self-Report Scales
Externalizing Problems	**Clinical Maladjustment**
Aggression	Anxiety
Hyperactivity	Atypicality
Conduct Problems	Locus of Control
Internalizing Problems	Social Stress
Anxiety	Somatization
Depression	**School Maladjustment**
Somatization	Attitude to School
School Problems	Attitude to Teachers
Attention Problems	Sensation Seeking
Other Problems	**Other Problems**
Atypicality	Depression
Withdrawal	Sense of Inadequacy
Adaptive Skills	**Personal Adjustment**
Leadership	Relations With Parents
Social Skills	Interpersonal Relations
Study Skills	Self-Esteem
Behavioral Symptoms Index	Self-Reliance
	Emotional Symptoms Index

The BASC incorporates adaptive processes, and provides a larger picture of the youth than by just using a personality questionnaire alone. The BASC also incorporates three validity scales to evaluate the truthfulness of the responses. Further, being a recently standardized, norm-referenced instrument, the scores themselves provide comparisons to a well established control group. This eliminates the need for a control group in the study, while providing results which have reasonable generalizability.

Table 9 presents scales of the BASC as they relate to DSM-IV categories of psychopathology (Reynolds and Kamphaus, 1992).

Table 9

BASC scales and subscales related to DSM-IV classifications

DSM-IV CLASSIFICATION	SELF-REPORT OF PERSONALITY	TEACHER RATING SCALE	PARENT RATING SCALE
Major Depression & Dysthymia	Depression	Depression	Depression
ADHD	N/A	Attention Problems & Hyperactivity	Attention Problems & Hyperactivity
Oppositional Defiant Disorder & Conduct Disorder	High Sensation Seeking; Low Anxiety	Conduct Problems & Aggression	Conduct Problems & Aggression
Overanxious Disorder & Separation Anxiety Disorder	Anxiety	Anxiety & Somatization	Anxiety & Somatization
Psychotic Features	Atypicality	Atypicality	Atypicality

Appendix II summarizes reliability statistics for the BASC. Reliability statistics show a high degree of internal consistency across all forms with the average coefficient alpha score for individual scales ranging between 0.76 and 0.87 and between 0.89 and 0.95 for composite scales. Test-retest reliability is strongest for the teacher rating scale (individual scales r^a average 0.81, composite scales 0.87) and weakest for parent ratings (individual scales r^a average 0.66, composite scales 0.73) with student self-report scales falling in-between (individual scales r^a average 0.76, composite scales 0.84). The manual (Reynolds and Kamphaus, 1992) stated "a parent's responses are expected to differ to some extent because the child's most recent behaviors will be predominant in the parent's mind, and because some children may actually have modified their behavior between the times the ratings are taken. (p.131). Interrater reliability is only found in the manual for the adolescent group for the parent rating scale. Here a comparison is made between the

mother's and father's ratings with the individual scales r^a average 0.65, composite scales 0.70), with the highest degree of congruency being found on the externalizing composite score r^a 0.74. A higher degree of interrater reliability is found on the BASC-TRS for children (individual scales r^a average 0.70, composite scales 0.80).

Flanagan (1995) stated "Median standard errors of measurement of T scores for the clinical and general samples are acceptable, ranging from 3.2 to 5.2 and 1.7 to 4.3 for the scales and composites, respectivley." (p.182).

Exploratory factor analysis, pattern of scale interactions for construct and concurrent validity and score profiles of groups of children with identified diagnoses for concurrent validity were used to examine the validity of the BASC (Flanagan, 1995). Covariance structure analysis (CSA: LISREL VI program) was used to examine and modify the model, assisting in determining the factor structure. The technical manual shows clear groupings by CSA for the factors obtained on all three forms of the BASC, although depression appears a weak fit (0.27) on the clinical problems composite of the self report and on the parent rating scale attention problems (0.43), atypicality (0.41) and withdrawal (0.420 are only modest fits on their composite scales.

Correlations were made with existing behavioral checklists: Teacher's Report Form (TRF; Achenbach, 1991); Child behavior Chelklist; (CBCL; Achenbach, 1991); Revised Behavior Problem Checklist (RBPC; Quay & Peterson, 1983); Conner' Teacher and Parent Rating Scales (CTRS-CPRS; Conners, 1989); Burks' Behavior Rating Scales (BBRS; Burks, 1977); and Behavior Rating Profile (BRP; Brown & Hammil, 1983); Personality Inventory For Children-Revised (PIC-R; Lachar, 1982), Minnesota Multiphasic Personality Inventory (MMPI; Hathaways & McKinley, 1943); Youth Self-

Report (YRS, Achenbach, 1985); Children's Personality Question (CPQ; Porter & Cattell, 1975). Reynolds et al. (1992) found many strong correlations between the BASC:TRS and similar scores on the TRF (.90 at the composite level; .90 externalizing composites, .73 to .81 on other composites), RBPC (.76 for scales both measuring aggression/conduct problems) and BBRS (exceeding .80 for many similar scales), with moderate, less clear correlations found with the CTRS (highest .69) and BRP (highest .60). High correlations were found between the BASC:PRS and the CBCL (.65-.86 for composite scores) and the externalizing scales of the CPRS (.71), with moderate correlations with the PIC-R (e.g., aggression/delinquency .36) and BRP (.44 to .60 for composites). Generally, studies found that externalizing behaviors were predicted more consistently across instruments than were adaptive or internalizing behaviors. The BASC-SRP and the MMPI (.72 to .89 on similar scales), YSR (e.g. school maladjustment and delinquent .68) and BRP (-.63 to -.67 for composites) showed many strong correlations, especially with the BASC clinical maladjustment composite while the CPQ correlated most strongly with the personal adjustment composite of the BASC (.65).

Scale scores were seen to be of greater use in diagnosing actual psychopathology than were composite scores, based on studies of clinical groups (Flanagan, 1995).

A second instrument, the Structured Interview for Diagnostic Asessment of Chidlren-Revised (SIDAC-R), was used with part of the sample as a means of comparison. The SIDAC-R is a structured interview format which follows the criteria set out in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) (APA, 1994). It examines symptoms of Major Depression, Dysthymic Disorder, Attention-Deficit Hyperactivity Disorders, Oppositional Defiant Disorder, Conduct

Disorder, Separation Anxiety Disorder, Overanxious Disorder and examines for Psychotic Symptomatology. A copy of SIDAC-R can be found in Appendix III. Like the BASC, the SIDAC-R relies on reports from a parent, teacher and the student to arrive at an overall diagnosis. A secondary portion of the SIDAC-R inquires about previous diagnoses or treatment. Scoring criteria recommended by Kamphaus and Frick (1996) were also taken into consideration. These criteria suggested that:

A) For Attention Deficit Disorder a minimum of 8 symptoms be reported by the parent, six from the child, and evidence of impairment in school behavior be reported by the teacher.

B) For Oppositional Disorder a minimum of 2 symptoms be reported by each parent and child, with the teacher indicating a pattern of negativistic behavior.

C) For Conduct Disorder a minimum of 2 symptoms from either parent or child, with confirmation of antisocial behavior from at least one other source.

D) Major Depression can be made from the child report alone , although parental information is generally considered.

Studies of structured diagnostic interviews have shown them to be useful in assessing children and adoelscents (e.g., Brent, Zelenak, Bukstein & Brown, 1990; Hodges, 1992; Biederman, Wozniak, Kiely, Ablon, Faraone, Mick, Mundy & Kraus, 1995), although (Hodges, 1992) cautions against viewing the results of the parent interview as automatically the most accurate. Wittchen (1994) reports good test-retest and inter-rater reliability for structured interviews, although Hodges (1992) points out that inter-rater reliability may be highest when examining acting out behaviors, and can be relatively low (.24) for measuring constructs such as anxiety. Grayson and Carlson (1991)

were against using DSM criteria based on parent reports alone without also obtaining information from the school. Perry (1992) stated that different diagnostic instruments (such as structured interviews and checklists) should only be compared with caution.

Analysis of Data

Analysis of data was done in ways that were appropriate to the research question being examined. The means, standard deviations and ranges for the BASC scores for each test are presented as well as a percentage distribution of elevations in the normal, at risk and clinically significant ranges of the BASC. Comparsons of the percentage of DSM-IV diagnoses obtained between the BASC and SIDAC-R are given as well as the percentage of students with no, single or multiple DSM-IV diagnoses using each instrument separately. Such analysis is similar to previous studies of a similar nature (Abram & Teplin, 1991; McGee et al., 1990), in which results were stated in terms of prevalence (percentages).

It was the goal of this study to arrive at conclusions about the previously mentioned research questions and to examine for the presence and prevalence of psychopathology among a sample of students who have exhibited violent behavior in a school setting and explore if one clear "profile" emerges for students who are violent, or if multiple profiles exist

Limitations of the Study

1. Only the BASC and SIDAC-R were used to measure psychopathology. No one, or two, instruments can adequately cover all possible areas of psychopathology.
2. The accuracy of the administrator/ teacher nomination.
3. The sample size that also completed the SIDAC-R.
4. Information regarding onset, degree and duration of violent behavior was not obtained.
5. Difficulty in obtaining administrative support and cooperation.
6. Insufficient sample of female students to include in analysis.

Delimitations (parameters) of the Study

1. May only be generalizable to junior high males in Alberta with significant behavioral concerns and cooperative parents.
2. Did not explore other forms of violence.
3. Did not include students whoa re violent but not identified.
4. Did not examine causality or history behind the violent behavior.

CHAPTER 4

Results

Research Question 1

What significant elevations are noted on the parent, teacher and self-report versions of the Behavior Assessment System for Children (BASC) for the sample of violent students?

Descriptive statistics for the various forms of the BASC (Parent Rating Scale, Teacher Rating Scale and Self Report of Personality) are presented in Tables 10 through 12, including the mean, standard deviation and range for all composite scales and subscales (N=54). The results are presented as T-Scores (mean = 50, standard deviation = 10). While in the actual test the adaptive scales are scored in the reverse direction (-1 standard deviation is seen to be "at-risk" and -2 or more standard deviations is seen to be clinically significant), scoring was "reversed" for ease of interpretation by subtracting adaptive scale T-Score from 100. In all cases for the following results, T-scores between 0 and 59 are not indicative of difficulties (although the BASC manual does provide some interpretive comments for certain low scores). Scores ranging from 60 to 69 (+1 SD) indicate moderate elevations which may be of some concern while scores over 70 (+2 SD or more) are seen to provide "clinically significant" levels of concern. The first three tables present composite and subscale scores in descending order, from highest to lowest T-Scores.

Table 10 presents the results for the BASC Parent Rating Scale (PRS). Consistent with what would be expected for a group of students identified as exhibiting violent

behaviors, the highest scores were seen in the area of Conduct Problems (mean T-Score = 73.44) and for the Externalizing Problems Composite score (mean T-Score = 68.26). The Behavioral Symptoms Index, an overall test composite score (much like a full scale IQ score on an intelligence test), and the Attention Problems subscale scores were both elevated over 1.5 standard deviations. At risk elevations were also noted for subscales measuring Hyperactivity and Depression. Somewhat surprisingly, the Aggression score mean fell within the average range.

Table 10

Means, Standard Deviations, and Ranges for BASC Parent Rating Scale (N=54)

Scale/Subscale	M*	SD*	Range*
Conduct Problems	73.44	18.58	43-120
Externalizing Problems Comp	68.26	13.93	41-104
Attention Problems	67.09	8.76	52-86
Behavioral Symptoms Index	65.19	15.15	35-102
Hyperactivity	62.81	17.02	34-101
Depression	62.22	16.03	38-107
Internalizing Problems Comp	59.78	14.19	37-91
Aggression	59.57	10.75	37-88
Anxiety	58.69	13.22	34-93
Adaptive Skills Comp**	57.87	8.74	34-71
Social Skills**	57.19	8.83	29-73
Withdrawal	57.19	15.73	37-99
Leadership**	56.93	7.96	36-73
Atypicality***	56.28	14.63	38-102
Somatization	53.87	13.53	35-95

*T scores: mean = 50, standard deviation = 10

**Adaptive scale scores converted to format (100-T Score) to allow for interpretation in same direction as other scales.

***Atypicality measures the tendency to behave in ways that are considered "odd," or are commonly associated with psychosis (such as experiencing hallucinations or having obsessive-compulsive thoughts).

Table 11 presents the results for the BASC Teacher Rating Scale (TRS), and shows the same top two elevations (Conduct Problems, Externalizing Problem

Composite) as for the PRS. Other TRS elevations included the Behavioral Symptoms Index and the Aggression sub scales. Generally, teachers identified a greater variety of concerns for violent/SLDB students than did the parents. Such areas of concern included study and learning problems, school difficulties in general, depression, atypical or bizarre behaviors and problems with attention and hyperactivity.

Table 11

Means, Standard Deviations, and Ranges for BASC Teacher Rating Scale (N=54)

Scale/Subscale	M*	SD*	Range*
Conduct Problems	73.17	18.88	42-120
Externalizing Problems Comp	68.89	13.12	40-97
Behavioral Symptoms Index	65.89	12.02	49-95
Aggression	65.17	11.38	40-87
School Problems Comp	64.28	8.51	49-83
Attention Problems	63.94	8.48	47-82
Hyperactivity	63.39	10.85	37-84
Learning Problems	62.61	10.43	47-88
Atypicality	62.26	17.66	42-120
Study Skills**	62.13	7.44	43-98
Depression	61.46	12.89	42-99
Internalizing Problems Comp	61.33	14.36	43-101
Adaptive Skills Comp**	60.72	6.96	27-70
Social Skills**	59.98	6.87	38-71
Leadership**	59.87	5.78	45-71
Anxiety	58.78	13.66	39-96
Somatization	58.73	18.09	43-116
Withdrawal	57.37	10.94	41-87

*T scores: mean = 50, standard deviation = 10

**Adaptive scale scores converted to format (100-T Score) to allow for interpretation in the same direction as other scales.

The results of the Self Report of Personality (SRP) are found in Table 11. Overall, students are seen to be less able to identify problem areas than are the parents or teachers, although many elevations are found in individual profiles. For the SRP all mean T-Scores

fell within a relatively narrow range producing a "flat" collective profile. In examining a reason for such a pattern it is observed that aggression and disruptive behavior is often classified as externalizing behavior, which may indicate that individuals have a tendency to "act out" problems, and lack the awareness or insight to meet their needs in more acceptable methods. While a study of juvenile male sex offenders using the BASC (Dalton, 1996) showed similar results to the present study, with no significant mean score elevations on the SRP, finding standardized test scores predictive of a tendency to be a perpetrator has traditionally met with little success.

Table 12

Means, Standard Deviations, and Ranges for BASC Self Report of Personality (N=54)

Scale/Subscale	M*	SD*	Range*
School Maladjustment Comp.	58.72	10.54	39-79
Sensation Seeking	58.28	8.63	42-78
Attitude to School	56.30	10.66	37-72
Sense of Inadequacy	55.87	10.99	38-83
Attitude to Teachers	55.69	10.38	38-72
Locus of Control	55.65	11.20	38-77
Atypicality	55.48	12.76	38-86
Depression	55.31	12.59	42-85
Relations with Parents**	54.96	11.88	42-82
Self-Reliance**	54.13	11.06	41-83
Personal Adjustment Comp**	54.09	11.02	35-86
Clinical Maladjustment Comp	54.04	11.45	36-77
Somatization	53.87	12.56	39-86
Emotional Symptoms Index	52.94	11.16	37-82
Interpersonal Relations**	52.46	10.69	42-90
Self-Esteem**	51.98	11.42	42-79
Social Stress	51.61	10.60	39-72
Anxiety	50.07	10.89	35-72

*T scores: mean = 50, standard deviation = 10

**Adaptive scale scores converted to format (100-T Score) to allow for interpretation in same direction as other scales.

Tables 10 through 12 indicate that overall test means on the BASC show elevations for the parent (PRS) and teacher (TRS) forms, including scales measuring conduct and externalizing problems. Elevations in areas such as depression, attention and hyperactivity are seen on the PRS, while the TRS shows many elevations including aggression, attention, hyperactivity, depression and study/scholastic skills. The results of the SRP do not show a similar pattern, and indicate that when grouped, significant elevations are not found.

Research Question 2

Are identifiable patterns of scale/subscale elevations identifiable for the:

A) BASC Parent Rating Scale

B) Teacher Rating Scale

C) BASC Self-Report of Personality

The following three Tables list the percentage of T-Scores from the sample which are in the normal range or elevated one, two and three or more standard deviations. The BASC manual indicates that scores elevated 1 standard deviation indicate possible difficulties (referred to as the "at-risk" range), indicative of moderate risk (concern). Elevations of 2 standard deviations or more are seen to be clinically significant, clearly indicating behaviors of concern (severe risk).

Table 13 presents the results for the percentage elevation analysis of the PRS. It is seen that over 40% of the profiles had clinically significant elevations in Conduct Problems, Attention Problems and on the Externalizing Problems Composite. When

considering elevations to include the "at risk" range (+1 Standard Deviation) over 50% of the profiles produced elevations in the above mentioned three scales as well as on the Behavioral Symptoms Index (test "composite") Hyperactivity, Depression, Aggression and on the Adaptive Skills composite.

Table 13

At Risk percentages for the BASC Parent Rating Scale (N=54)

	Normal	At Risk	Clinically Significant	
Scale/Subscale	T=0-59	+1 SD	+2 SD	+3 SD & up
Conduct Problems	29.6	18.5	16.7	35.2
Externalizing Problems Comp	27.8	25.9	24.1	22.2
Attention Problems	18.5	38.9	35.2	7.4
Behavioral Symptoms Index	38.9	31.5	11.1	18.5
Hyperactivity	48.1	18.5	13.0	20.4
Depression	51.9	20.4	13.0	14.8
Internalizing Problems Comp	59.3	14.8	11.1	14.8
Aggression	48.1	35.2	11.1	5.6
Anxiety	57.4	20.4	16.7	5.6
Adaptive Skills Comp	48.1	44.4	7.4	0
Social Skills	53.7	42.6	3.7	0
Withdrawal	66.7	14.8	3.7	14.8
Leadership	57.4	38.9	3.7	0
Atypicality	70.4	14.8	7.4	7.4
Somatization	72.2	14.8	5.6	7.4

The TRS results found on Table 14 show many (12 out of 18 scale/subscale) elevations when the "at risk" (+1 SD) category is considered, yet only 2 areas, the Externalizing Problems Composite and the Conduct Problem subscale are elevated to a clinically significant level in over 40% of the cases. A wide range of concerns are reported for students on the TRS. In over 20% of the cases clinically significant elevations are noted (+2 SD and up) on scales such as School Problems, Internalizing Problems, Aggression, Attention Problems, Hyperactivity, Learning Problems, Atypicality,

Depression, and Somatization. This implies that while externalizing concerns are found in a significant number of cases, concerns regarding internalizing and academic problems are also noted for this group of students.

Table 14

At Risk percentages for the BASC Teacher Rating Scale (N=54)

	Normal	At Risk	Clinically Significant	
Scale/Subscale	T=0-59	+1 SD	+2 SD	+3 SD & up
Conduct Problems	24.1	24.1	16.7	35.2
Externalizing Problems Comp	25.9	27.8	27.8	18.5
Behavioral Symptoms Index	31.5	37	13	18.5
Aggression	35.2	31.5	20.4	13
School Problems Comp	31.5	37	25.9	5.6
Attention Problems	33.3	40.7	24.1	1.9
Hyperactivity	38.9	31.5	22.2	7.4
Learning Problems	50	22.2	20.4	7.4
Atypicality	59.3	16.7	5.6	18.5
Study Skills	24.1	72.2	1.9	1.9
Depression	55.6	24.1	13	7.4
Internalizing Problems Comp	57.4	16.7	13	13
Adaptive Skills Comp	33.3	64.8	1.9	0
Social Skills	42.6	53.7	3.7	0
Leadership	42.6	53.7	3.7	0
Anxiety	59.3	24.1	7.4	9.3
Somatization	64.8	11.1	9.3	14.8
Withdrawal	64.8	22.2	7.4	5.6

As noted previously in examining Table 12, Table 15 has a markedly different pattern from the PRS and TRS results. The highest subtest with clinically significant elevations was Atypicality representing unusual thoughts, behaviors or beliefs, in 24% of the subjects. When also considering "at risk" (+1 SD) elevations, the School Maladjustment Composite, which measures a pervasive pattern of dissatisfaction with school, teacher and

education in general, was elevated for 54% of the students. Sensation Seeking, or the tendency to take risks, like noise or seek excitement, was elevated on 52% of the profiles.

Table 15

At Risk percentages for the BASC Self Report of Personality (N=54)

	Normal	At Risk	Clinically Significant	
Scale/Subscale	T=0-59	+1 SD	+2 SD	+3 SD & up
School Maladjustment Comp.	46.3	38.9	14.8	0
Sensation Seeking	48.1	42.6	9.3	0
Attitude to School	53.7	42.6	3.7	0
Sense of Inadequacy	68.5	22.2	5.6	3.7
Attitude to Teachers	55.6	31.5	13.0	0
Locus of Control	66.7	20.4	13	0
Atypicality	63	13	22.2	1.9
Depression	72.2	11.1	11.1	5.6
Relations with Parents	75.9	9.3	9.3	5.6
Self-Reliance	66.7	25.9	7.4	0
Personal Adjustment Comp	74.1	16.7	7.4	1.9
Clinical Maladjustment Comp	66.7	24.1	9.3	0
Somatization	66.7	18.5	11.1	3.7
Emotional Symptoms Index	70.4	20.4	7.4	1.9
Interpersonal Relations	75.9	16.7	5.6	1.9
Self-Esteem	75.9	9.3	14.8	0
Social Stress	74.1	20.4	5.6	0
Anxiety	79.6	16.7	3.7	0

Appendix IV shows the correlations for scales within the BASC TRS, PRS and SRP.

Research Question 3

What Was The Prevalence Of Psychopathology Found In The Sample Of Violent Students?

Diagnoses of mental disorders, using both the BASC and the SIDAC-R is presented in Table 15. Diagnoses are artificially separated by form (parent, teacher and student) and by method (BASC and SIDAC-R). Prevalence is defined as the percentage of subjects appearing to have the disorder out of the total sample. For example if 27 out of 54 students appeared to qualify for a diagnosis of Conduct Disorder the prevalence would be 50%.

Table 16

Percentage Prevalence of Mental Disorders based on BASC and SIDAC-R Elevations

	Student Form		Parent Form		Teacher Form	
DSM-IV	BASC	SIDAC-R	BASC	SIDAC-R	BASC	SIDAC-R
CLASSIFICATION	(N=54)	(N=22)	(N=54)	(N=25)	(N=54)	(N=25)
Major Depression	17	23	26	20	20	24
Dysthymia[1]		9		24		24
Attention-Deficit Hyperactivity Disorder[2]	N/A	82	35	72	22	80
Conduct Disorder	6	6	50	16	59	32
Oppositional Defiant Disorder[3]		12		56		80
Overanxious Disorder[4]	4	6	17	20	19	20
Psychotic Features[5]	22	4	15	8	24	8

1 Measured by BASC Depression scale - all forms

2 Measured by Attention and Hyperactivity - BASC Parent and Teacher forms

3 Measured by High Sensation Seeking/Low Anxiety - BASC Self Report
Measured by Conduct Problems and Aggression - BASC Parent / Teacher forms

4 Measured by BASC Anxiety scale - all forms (and Somatization Parent/Teacher forms)

5 Measured by BASC Atypicality scale - all forms

In clinical practice, diagnoses would be reached using information from a variety of sources. The reason for separation is to examine the differences between the reports from the three groups of raters. Table 8 listed the BASC scales which are related to DSM-IV diagnoses. It is noted here that while the emphasis here is on psychopathology,

the BASC provides additional information in other areas such as self-esteem, social skills and relationships which are also important in the total clinical picture. While the BASC is designed to measure as many areas as possible, the SIDAC-R is specifically designed to cover the areas listed in the body of the Table. Of note in the scoring of the SIDAC-R is that diagnoses of both Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) were given, if applicable, for the same individuals, where in normal practice a Conduct Disorder diagnoses would take precedence and would be the primary diagnosis.

In examining the percentage prevalence of mental disorders by diagnosis, as opposed to the comparison of means in Tables 10 through 12, comparable results were obtained across all three groups in the areas of Major Depression (17 to 24%) and Psychotic Features with the BASC identifying a higher percentage (15 to 24%) than the SIDAC-R (4 to 8%). It is noted both the BASC Atypicality subscale and the SIDAC-R Psychotic Features section are only screenings, and do not provide positive identification of such serious conditions as Schizophrenia or other Psychotic Disorders.

A significant percentage of students fit into the diagnostic categories of Attention Deficit Hyperactivity Disorder (ADHD), CD, ODD and Anxiety Disorders with parents and teachers identifying more concerns in these areas than did the students.

Table 17 reported prevalence rates of mental disorders according to the DSM-IV criteria (APA, 1994).

Table 17

Percentage Prevalence of Mental Disorders among adolescents according to the DSM-IV

DSM-IV CLASSIFICATION	Prevalence
Major Depression	5-12%
Dysthymia	3-6%
Attention Defecit Hyperactivity Disorder	3-5%
Oppositional Defiant Disorder	2-16%
Conduct Disorder	6-16%
Separation Anxiety Disorder	4%
Overanxious Disorder (generalized anxiety disorder)	3-5%
Psychotic Features (all psychotic disorders combined)	1-3%

In comparing the prevalence rates of psychopathology found in this study of violent students (Table 16) to that of the general population (Table 17), significantly higher numbers of cases of ADHD and Psycotic Features were noted in the sample of violent teens than predicted in the general population. Somewhat higher numbers of Depressed subjects were found, as were diagnoses of ODD and CD, while problems with anxiety appeared consistent with that of the general population.

Research Question 4

What percentage of students exhibit co-morbid psychopathology, as indicated by multiple DSM-IV diagnoses or multiple BASC elevations?

Tables 18 and 19 indicate the percentage of students with multiple DSM-IV diagnoses and with multiple elevations on the BASC. The Tables are not directly comparable due to the difference in the structure of the SIDAC-R and the BASC forms. However both do show that multiple concerns exist for the majority of students, regardless of instrument used. On all forms of the SIDAC-R over 50% of the students appear to have two or more diagnoses. Co-morbidity, such as Attention-Deficit

Hyperactivity along with either Conduct Disorder or Oppositional Defiant Disorder are commonly found. On the BASC tests, multiple elevations appear to be the norm for the TRS and PRS. It is also noted that less pathology is identified using a multidimensional test such as the BASC than on a more pathologically oriented method such as the SIDAC-R. Examples of co-morbidity on the BASC:PRS includes 43% of the sample having elevations on both the depression and conduct problems scales; 33% have problems with both aggression and social skills. On the TRS multiple elevations are seen in areas such as 41% of the sample having elevations on both the Conduct Problems and Learning Problems scales.

Table 18

Percentage of students given no, single or multiple diagnoses using the SIDAC-R

SIDAC-R Forms	No Diagnoses*	One Diagnosis*	Two Diagnoses*	Three Diagnoses*	Four or More Diagnoses*
Student Report (N=22)	13.6	18.2	27.3	18.2	22.7
Teacher Report (N=25)	0	24	28	28	20
Parent Report (N=25)	16	28	28	8	20

*Percentages

Table 19

Percentage of students with no, single or multiple Clinical Range elevations (+2 SD and up) on the BASC: all scales and subscales considered

BASC Forms (N=54)	No Elevations*	One Elevation*	Two Elevations*	Three Elevations*	Four or More Elevations*
Student Report	48.2	12.9	12.9	5.6	20.4
Teacher Report	24.1	9.3	5.6	18.5	42.5
Parent Report	28.8	11.1	18.6	5.6	38.9

*Percentages

Research Question 5

What is the inter-rater reliability between the parent, teacher and student forms of the BASC on comparable scales and subscales?

Tables 10 and 11 showed that overall significant elevations were found on the teacher and parent forms of the BASC on the Conduct Problems scale as well as on the Externalizing Problems Composite scores, consistent with what would be expected for students with acting out behaviors. Further, significant numbers of students (over 25%) were viewed by parents to have clinically significant elevations on Attention Problems, Hyperactivity, Depression, Internalizing Problems Composite as well as on the overall scale, the Behavioral Symptoms Index. Similarly, teachers reported over 25% of the sample to also have clinically significant elevations on the Behavioral Symptoms Index, the School Problems and Internalizing Problems Composite scores, and on scales measuring Aggression, Attention Problems, Hyperactivity, Learning Problems and Somatization.

Table 20 examines the correlations between parent and teacher composite BASC scales. It is seen that the teacher and parent Externalizing and Adaptive Composite areas are significantly correlated ($p<.05$), as are the teacher Behavior Symptoms Index and Adaptive Skills scores with the parent Externailizing Composite. Table 21 presents the correlations between the student and teacher BASC's.

Table 20

Correlations Between Parent and Teacher Composite BASC Scales
(Pearson Product-Moment Coefficients, 0.95 level of significance)

Teacher Rating Scale Composites	Parent Rating Scale Composite Scores			
	Externalizing Problems	Internalizing Problems	Behavioral Symptoms Index	Adaptive Skills
Externalizing Problems	.3670 p=.014	-.0696 p=.617	.0418 p=.764	.0367 p=.792
Internalizing Problems	.2134 p=.121	.1873 p=.175	.1959 p=.156	-.0351 p=.801
School Problems	.1877 p=.174	.0621 p=.655	.1480 p=.285	.0959 p=.490
Behavioral Symptoms Index	.2784 p=.042	.0902 p=.517	.1836 p=.184	.0094 p=.946
Adaptive Skills	.2689 p=.049	-.0348 p=.803	.1216 p=.381	.2783 p=.042

Table 21

Correlations Between Student and Teacher Composite BASC Scales
(Pearson Product-Moment Coefficients, 0.95 level of significance)

Teacher Rating Scale Composites	Student Rating Scale Composite Scores			
	School Maladjustment	Clinical Maladjustment	Personal Adjustment	Emotional Symptoms Index
Externalizing Problems	.3086 p=.023	.0666 p=.632	.1249 p=.368	.0983 p=.480
Internalizing Problems	.2417 p=.078	.1299 p=.349	.0029 p=.983	-.0056 p=.968
School Problems	.1387 p=.317	.1274 p=.359	.1913 p=.166	.1680 p=.224
Behavioral Symptoms Index	.2414 p=.079	.0848 p=.542	.1293 p=.351	.0890 p=.522
Adaptive Skills	.0115 p=.934	-.1816 p=.189	.0343 p=.806	-.0886 p=.524

Here, the only strong correlations found between the student and Teacher BASC's are between the student School Maladjustment area score and the teacher Externalizing Problems area score ($p<.02$). This indicates that students who report minimal satisfaction with school or relationships with teachers, and who like risk-taking behaviors are more likely to exhibit acting out behaviors.

In Table 22, it can be seen that the significant correlations between student and parent BASC forms are statistically stronger and more numerous than either form was with the Teacher Rating Scale.

Table 22

Correlations Between Student and Parent Composite BASC Scales
(Pearson Product-Moment Coefficients, 0.95 level of significance)

Parent Rating Scale Composites	Student Rating Scale Composite Scores			
	School Maladjustment	Clinical Maladjustment	Personal Adjustment	Emotional Symptoms Index
Externalizing Problems	.2124 p=.123	.3282 p=.015	.4756 p=.000	.3325 p=.014
Internalizing Problems	.1281 p=.356	.4539 p=.001	.4040 p=.002	.4240 p=.001
Behavioral Symptoms Index	.1730 p=.211	.4077 p=.002	.4608 p<.001	.3935 p=.003
Adaptive Skills	.2990 p=.028	.3422 p=.011	.3555 p=.008	.3418 p=.011

In particular, the student Self-Report composite (Emotional Symptoms Index), Personal Adjustment Composite and Clinical Maladjustment scores correlated highly with all composite scores of the Parent Rating Scale. The SRP School Maladjustment Composite correlates significantly only with the Adaptive Skills Composite of the PRS.

Teacher and Parent scores for Externalizing and Adaptive composite showed significant correlations (p=.014 and .042, respectively), while the only statistically significant correlation between the SRP and TRS was the School Maladjustment – Externalizing Problems correlation (p=.023).

Table 23 presents the correlations between the Parent and Teacher Rating Scales. Of the similarly names scales, only Conduct Problems, Somatization, Social Skills and Leadership correlated significantly. Hyperactivity on the parent scale correlated significantly with Depression, Learning Problems and Atypicality on the TRS.

Table 23
Correlations Between Subtests of the BASC Parent Rating Scale and the BASC Teacher Rating Scale (N=54)

Teacher Scales / Parent Scales	Hyper	Aggr.	Cond.	Anx.	Dep.	Som	Attn.	Lrn.	Aty.	Wth	Soc	Lead	Study
Hyperactivity	.18	-.07	.01	.03	.34*	.10	.22	.28*	.29*	.07	-.01	.18	.06
Aggression	-.06	.13	.23	.02	.19	.07	-.07	.04	.14	.13	.28*	.20	.06
Conduct Prob.	.13	.34*	.68*	.04	.24	.16	.08	.15	.29*	-.01	.40*	.05	.23
Anxiety	-.10	-.13	-.05	.13	.16	.18	.11	.13	.06	.10	-.01	.32*	.16
Depression	-.01	-.07	.04	.03	.26	.12	.11	.10	.17	.11	.04	.27*	.10
Somatization	-.02	-.18	-.22	.04	.02	.32*	.01	-.09	-.11	-.00	-.22	.06	-.03
Atypicality	.01	-.04	.04	.06	.20	.20	.03	.05	.27*	.09	.09	.19	-.06
Withdrawal	-.28*	-.23	-.16	-.27*	-.17	-.22	-.07	-.04	-.07	.40*	.07	.28	.23
Atten. Prob.	-.06	-.06	.01	.04	.28*	.12	.14	.21	.24	.21	.13	.16	.14
Social Skills	-.07	.16	.24	-.13	.09	-.11	.06	.14	.16	.28*	.48*	.25	.19
Leadership	-.14	-.09	.03	.04	.12	-.02	.01	.16	.07	.41*	.33*	.37*	.08

*p<.05

Tables 24 and 25 show the correlations between the SRP and the TRS and PRS, respectively.

Table 24
Correlations Between Subtests of the BASC Student Self Report of Personality and the BASC Teacher Rating Scale (N=54)

	Teacher Scales												
Student Scales	Hyper	Aggr.	Cond.	Anx.	Dep.	Som	Attn.	Lrn.	Aty.	Wth	Soc	Lead	Study
Attitude to school	.04	.21	.21	.13	.18	.09	.09	.22	-.05	-.06	.19	.11	.20
Attitude to teacher	.20	.27*	.34*	.02	.15	-.01	.09	.19	-.01	-.04	.19	-.02	.23
Sensation seeking	.26	.33*	.41*	.03	.34*	.28*	-.03	.05	.35*	-.01	.20	-.06	-.11
Atypicality	-.01	.08	.16	.17	.20	.22	.04	.05	.06	.01	-.01	.07	-.07
Locus of control	.08	.17	.22	-.02	.21	.11	.11	.15	.08	.05	.12	.15	.24
Somatization	-.11	.04	.05	.09	.06	.20	.04	.02	-.19	.08	-.07	.15	.17
Social stress	-.05	.05	-.11	-.09	.12	-.05	.04	.07	-.24	.04	.01	.10	.04
Anxiety	-.01	.19	-.04	.23	.02	-.02	.08	.17	-.12	-.08	-.02	-.03	.03
Depression	.01	.22	.19	-.03	.25	.11	.02	.13	-.09	.01	.10	.07	.09
Sense of inadequacy	-.08	.05	.07	-.14	.04	-.01	.14	.13	-.22	-.10	.10	.25	.21
Relations –parents	.21	.18	.33*	.04	.39*	.08	.25	.26	.24	.22	.24	.14	.25
Interpersonal	.01	-.06	-.21	.01	.12	-.13	.03	.09	-.05	.22	.05	.05	.06
Self-esteem	.06	.20	-.07	-.01	.19	-.01	.06	.05	-.10	.25	.09	.03	.11
Self-reliance	-.08	-.18	.01	-.15	.07	-.01	-.10	.14	-.04	-.01	.06	.13	-.01

*p<.05

Similarly named scales do not significantly correlate between the Student and Teacher forms of the BASC while all similar scales (Anxiety, Depression, Somatization and Atypicality) are correlated significantly between the Parent and Student forms. Student Sensation Seeking appears to correlate with many Teacher scales (Aggression, Conduct Problems, Depression, Somatization and Atypicality). While many of these correlation's appear statistically significant, they appear weak on a practical basis.

Table 25

Correlations Between Subtests of the BASC Student Self Report of Personality and the BASC Parent Rating Scale (N=54)

	Parent Scales										
Student Scales	Hyper	Aggr.	Cond.	Anx.	Dep.	Som	Aty.	Wth	Atten.	Soc	Lead
Attitude to school	.03	.06	.15	.16	.03	-.14	.02	.05	.23	.3*	.24
Attitude to teacher	.05	.01	.20	.11	.03	-.10	-.13	.06	.16	.19	.13
Sensation seeking	.14	.31*	.35*	.04	.06	-.17	.18	-.01	.28	.25	.15
Atypicality	.35*	-.19	.18	.50*	.43*	.22	.33*	.08	.27	.26	.37*
Locus of control	.41*	.30*	.32*	.52*	.45	.19	.18	.20	.31*	.31*	.29*
Somatization	.19	.01	.14	.40*	.33*	.29*	.05	.10	.10	.08	.13
Social stress	.40*	.24	.06	.48*	.50*	.27	.22	.21	.24	.29*	.27
Anxiety	.17	.06	.05	.28*	.25	.16	.19	-.07	.13	.20.	.18
Depression	.25	.16	.26	.34*	.34*	.19	.05	.10	.24	.21	.24
Sense of inadequacy	.24	.25	.12	.37*	.32*	.23	.08	.18	.32*	.22	.12
Relations -parents	.44*	.24	.38*	.32*	.37*	.17	.26	.11	.40*	.25	.23
Interpersonal	.32*	.21	-.01	.34*	.45*	.21	.13	.33*	.21	.25	.30*
Self-esteem	.07	.12	.07	.21	.20	.08	.08	.24	.27*	.33*	.32*
Self-reliance	.41*	.25	.21	.26	.43*	.15	.19	.31*	.36*	.08	.09

*p<.05

Research Question 6 CASE STUDY

What clinical descriptions can be obtained about a student who has exhibited violent behavior, using the BASC?

The following data represents one of the students who took part in this study. BASC data is listed in tables 26, 27 and 28, with SIDAC-R data given in table 29.

Name: Walter
Age: 14 years, 8 months at time of testing
Grade: 8
Placement: Behavior Improvement Program

Table 26

BASC-TRS data for Case Study

TRS Composite/Scale T-Scores		Validity Scales
Behavioral Symptoms Index	71	• Valid For Interpretation
Externalizing Problems Comp	73	
Hyperactivity	79	
Aggression	74	Critical Items
Conduct Problems	60	"Almost Always"
Internalizing Problems Comp	51	• Uses medication.
Anxiety	45	"Often"
Depression	63	• Uses foul language.
Somatization	45	"Sometimes"
School Problems Composite	73	• Threatens to hurt others.
Attention Problems	71	• Throws tantrums.
Learning Problems	72	• Says, "I hate myself."
Atypicality	66	
Withdrawal	53	
Adaptive Skills Comp*	66	*Adaptive scores converted to show
Leadership	63	concerns when elevated
Social Skills	69	
Study Skills	62	

The teacher views Walter to have attention and learning problems, weak social skills and to display aggressive, hyperactive behaviors. Critical Items indicate that Walter may be somewhat of a bully, while also having problems with self-esteem. Both the Teacher and Parent BASC's show elevations consistent with a previous diagnosis Walter has in his school file of having Attention-Deficit Hyperactivity Disorder.

Table 27

BASC-PRS data for Case Study

PRS Composite/Scale T-Scores		Validity Scales
Behavioral Symptoms Index	64	• Valid For Interpretation
Externalizing Problems Comp	63	
Hyperactivity	69	
Aggression	53	Critical Items
Conduct Problems	60	"Sometimes"
Internalizing Problems Comp	56	• Says, "I hate myself."
Anxiety	64	• Sleeps with parents.
Depression	54	• Uses medication.
Somatization	47	• Says, "I'm afraid I'll hurt someone."
Atypicality	49	
Withdrawal	47	
Attention Problems	73	
Adaptive Skills Comp	63	*Adaptive scores converted to show concerns when elevated
Leadership	59	
Social Skills	65	

A high degree of aggressive behavior in noted in the school setting, while both parent and teacher agree that moderate concerns exist for Walter with regards to rule breaking behavior. Similar (moderate) concerns also exist for his Adaptive Skills and Social Skills. The Parent Rating scale also shows concerns for Walter regarding anxiety,

while the Teacher form shows concerns of Depression, Learning Problems, Atypicality, Leadership, Study Skills and on the School Problems Composite.

Table 28

BASC-SRP data for Case Study

SRP Composite/Scale T-Scores		Validity Scales
Emotional Symptoms Index	82	• Valid for interpretation
School Maladjustment Comp	72	
Attitude to School	65	
Attitude to Teachers	72	Critical Items
Sensation Seeking	67	Responded "true" to
Clinical Maladjustment Comp	75	I can't seem to control; what happens to me.
Atypicality	70	I don't seem to do anything right.
Locus of Control	77	Someone wants to hurt me.
Somatization	66	I just don't care anymore.
Social Stress	69	Nothing goes my way.
Anxiety	72	Nobody ever listens to me.
		I cannot control my thoughts.
Depression	79	Other kids hate to be with me.
Sense of Inadequacy	83	Sometimes voices tell me to do bad things.
Personal Adjustment Comp	73	I get into fights at school.
Relations With Parents	65	I cannot stop myself from doing bad things.
Interpersonal	72	
Self-Esteem	78	*Personal Adjustment scores converted to
Self-Reliance	54	show concerns when elevated

The SRP presents Walter's view of his own emotional difficulties. He reports a poor relationship with teachers and likely obtains minimal positives from school in general. Further, Walter sees himself to have relationship difficulties with both peers and parents. He may feel uncomfortable in social situations and has low self-esteem. Walter reports many symptoms of depression including feelings of inadequacy and belief that events in life are beyond his control. A high degree of personal difficulties are suggested for Walter in his responses, although his parents and teachers tend to focus more on his acting out

behaviors in their responses to the BASC. The teacher appears more aware than does that parent that Walter may be depressed.

Table 29

SIDAC-R Results for Case Study

SIDAC-R Results	Teacher	Parent	Student
Major Depression	-	-	yes
Dysthymic Disorder	-	-	-
Attention-Deficit Hyperactivity Disorders	yes	yes	yes
Oppositional Defiant Disorder	yes	-	yes
Conduct Disorder	yes	-	-
Separation Anxiety Disorder	-	-	-
Overanxious Disorder	-	-	yes
Psychotic Symptomatology	-	-	-

In the SIDAC-R, again, the parents and teachers identify acting out (externalizing) concerns, as does Walter. However, it is only on Walter's report that Depression and Anxiety are noted. While the present research showed a trend for students with "externalizing' behaviors to under-report on the BASC, examining an individual case points to the usefulness of obtaining a student self-report in completing an assessment.

Other information: letter from psychiatrist dated June, 1997 listing Attention-Deficit Hyperactivity Disorder diagnosis since grade 1. Present psychiatric diagnosis Attention-Deficit Hyperactivity Disorder and (severe) Oppositional Defiant Disorder.

In this example, BASC results, SIDAC-R responses and independent psychiatric evaluation appear consistent in diagnoses of ADHD and Conduct Disorder. The BASC provides further information indicating the possible presence of Depression (TRS, SRP), Anxiety (PRS, SRP), and Social Skills/Self-Esteem difficulties (TRS, PRS, SRP).

While the acting out behaviors appear the most obvious at first examination, when considering the entire clinical profile, it appears that Walter may be a profoundly unhappy and insecure individual who exhibits his unhappiness through inappropriate behaviors. Intervention for Walter should include counselling to address the depression, possible medical involvement as well as social skills training.

CHAPTER 5

Discussion and Conclusions

School violence (Rich, 1992) and violence in society in general (Lal et al., 1993) is seen to be a major and increasing problem. While some (e.g., Furlong & Morrison, 1994) believe that schools are safer for children than many other parts of society, documented violent acts and violent crimes done by youth are increasing (Hornick et al., 1996). While many forms of violence are seen to exist in society, this research limited its focus to acts of physical and verbal violence.

Many theories have been presented for the origins of violent behavior ranging from examining school characteristics (e.g., Quarels, 1993), as a sociological construct (e.g., Rich, 1981), as a product of a violent culture (e.g., Guerra et al, 1994), as a developmentally explainable event (e.g., Tolan et al., 1995), as a result of observing violence in media and society (e.g., Bandura, 1977), or as having genetic (e.g., McGuffin & Tharrpar, 1992) or neuropsychological (e.g., Giancola and Zeichner, 1994) origins. More balanced views were also found, such as Evans and Evans (1985) who state that "the perpetrator, the victim, their relationship, situational determinants, and the cultural context must all be considered" (p. 19).

Similarily, much research on school violence has focused on documenting its occurrence (Quarles, 1993), interviewing administrators (Boothe, 1993) or interviewing students/victims (Smith & Thompson, 1991). Others (Hranitz & Eddowes, 1990; Kurtz, et al., 1993) have related family of origin factors to subsequent violent behavior.

Cognitive mediators of aggression have also been studied (Slaby & Guerra, 1988) and it was seen that poor problem solving skills may lead to aggressive responses by students.

To date studies have not been found specifically examining the prevalence of mental disorders (psychopathology) among students who exhibit violent behaviors in school.

Adolescent psychopathology in general has been studied extensively, and a tendency for diagnoses to change during adolescence has been noted (Korenblum et al., 1990). The prevalence of adolescent psychopathology is seen to range between 14 and 22% (McGee et al, 1990; APA, 1994).

The Behavior Assessment System for Children is a recent, well developed instrument that is useful for assessing and identifying students with behavioral disorders and emotional disturbances (Sandoval & Echandia, 1994), and is recognized as usefull for assessing behavioral disorders in school (Flanagan, 1995; Merenda, 1996; Alberta Education, 1995).

This research evaluated 54 junior high (grade 7 to 9) males who have exhibited violent behavior (using the BASC) with approximately one-half (22 students) also evaluated using a structured interview. Parents, teachers and students were all used for input.

This research shows that students who have been identified as violent by administrator or teacher nomination exhibit a variety of emotional symptomatology indicative of a degree of psychopathology greater than that found in other studies of adolescents in general. Consistent with what would be expected of violent students, parent and teacher BASC results show elevations in the areas of Externalizing and

Conduct Problems. It is also noted that less obvious concerns exist to a significant level for these students in such areas as Depression, Attention Problems and School/Learning Problems. One implication of such a finding is that students who are seen to behave in a similar fashion (aggressive, violent and inappropriate) do so for a variety of reasons, and may not all benefit from similar intervention strategies.

It is also seen that, as a group, students may be the least reliable raters. While mean T-Scores produced no elevations, individual students did produce profiles which showed areas of concern for them. Students tended to identify dissatisfaction with school and teachers and a thrill seeking attitude as the major areas of concern.

In addition to the results identifying a variety of emotional problems for the group of students, there were also students with no clinically significant elevations on the BASC (48% on the SRP; 29% on the PRS;, 24% on the TRS). This reinforces an interactional view of violence in which the "perpetrator, the victim, their relationship, situational determinants, and cultural context must all be considered" (Evans and Evans, 1985). Diagnoses can add an important aspect to understanding violence/SLDB, but can not explain the entire situation.

Another issue illustrated by the present research is that of comorbidity, with the majority of students having multiple areas of concern. This is consistent with results of studies which found that psychological problems tend to cluster together (e.g., Lorr and Strack, 1990) and that a high degree of comorbidity exists especially among individuals with acting out or antisocial behaviors (e.g., Abram & Teplin, 1991; Nurnberg, Raskin, Levine, Pollack, Siegel & Prince, 1991). Again, it points to the need for complex interventions for complex problems.

While both teachers and parents viewed the students to have a signficant degree of conduct problems and to have elevated Externalizing Problems composites, multiple kinds of concerns were noted in the overall BASC results. Previous findings of Verhulst et al. (1993), have suggested that externalizing disorders are most persistent over time. A high degree of co-morbidity was noted by all raters, with two or more clinically significant elevations noted over 60% of the time by parents and teachers and over 30% of the time by students. This is consistent with adult studies which have found a high degree of co-morbidity of Antisocial Personality Disorder with other major mental disorders (Hodgins & Cote, 1990).

Although many students showed forms of externalizing behavioral problems, not finding a single, clear cut profile predictive of all students who are violent, is consistent with Borum's (1996) statement that the assessment of violence is a complex issue. Grisso and Tomkins (1990) concur stating that the likelihood of violence can not yet be accurately predicted.

An implication for treatment is that, with no one pattern of psychopathology found, it is unlikely that any one treatment/prevention program will meet the needs of all people. Tate, Repucci, and Mulvey (1995) point to the wide variety of interventions attempted with violent youths in the criminal justice system, and the need for sophisticated studies of treatment effectiveness. The first stage of treatment requires identification of what is being treated.

A higher degree of psychopathology was found overall in this "clinical" sample, than has been found by studies of the general population. Violent students are in need of a high degree of intervention. Using the structured diagnostic interview (SIDAC-R), it was

found that over 50% of the students qualified for multiple DSM-IV diagnoses, adding to the complexity of their needs. This result is seen to be significantly higher than prevalence rates identified either in the DSM-IV (APA, 1994) or by McGee et al. (1990). However, it is is consistent with McGee et al. (1990) who have identified that "a significant number" of adolescents exhibit psychopathology" (p.611). Nevertheless, even among "violent" students the caution remains that such behavior may be more developmental than pathological, and may be somewhat transient in nature (Korenblum et al., 1990).

Consistent with previous studies (Flanagan, 1995; Sandoval & Echandia, 1994) the BASC is seen to be a usefull instrument for assisting in the identification of emotional and behavioral concerns. It was been described previously as appropriate for use of identifying severe learning disruptive behavior characteristics. A caution arising from the results of this study is that the student self-report forms for violent students may not identify acting out behaviors, but are useful for obtaining a clearer picture of the emotional functioning of the student. However, BASC-SRP results can pinpoint areas for intervention as often school satisfaction, relationship and self-esteem problems are found. It is important to make use of all three forms of the BASC (TRS, PRS,SRP) as the teacher and parent forms appear to better identify psychopathology. The usefulness of parent and teacher reports relates to comments made by Tolan, Guerra and Kendall (1995) that early intervention may be the key to preventing antisocial behavior in older children.

Finally, the case study presented to illustrate usefullness of the BASC (and a structured interview) shows that a wealth of useful information can be obtained on individual students, able to assist in the design of an appropriate intervention. Of course, identifying psychopatholgy is not the magic key to the school violence problems, but it

does present another important piece of the total picture. Consistent with views of Evans and Evans (1985) and Rich (1992) many factors need to be considered to understand school violence. In 1980, Quay pointed out the need to understand personality characteristics in understanding violent behavior. In the absence of such information, along with knowledge of developmental, social, family, and cultural variables (and the effect of their interactions), preventative and treatment approaches will be less effective.

The Next Steps In Dealing With Violent Students

The need for including psychological assessment as a method of addressing school violence is supported by the results of this study. While even school psychologists may be reluctant to apply "labels" to violent students, diagnosis does have it's place. Adult diagnoses such as that of having a Personality Disorder implies an enduring pattern of behavior which has become part of a person's lifestyle. Many "labels" used by school psychologists are more ways of communicating among professionals than actual descriptive labels. For example, 3 students could all have diagnoses of Conduct Disorder, while one student primarily is violent or cruel towards people, another destroys property or steals, while a third refuses to follow basic rules. The exciting part of this scenario is that the labels do provide a basis for research into effective treatments. For example cognitive behavioral interventions may be the treatment of choice for adolescents diagnosed as having conduct disorder (Feindler and Guttman, 1994) while a combination of pharmacotherapy and psychotherapy is often used for depression (Reynolds, 1995) and a wide range of interventions are used for impulse control disorders (Ollendick, 1995).

The results of this study do not suggest that all other aspects of examining school violence be abandoned. Rather, it adds the concept of psychopathology to all of the other areas which must be considered in coping with this problem. The factors which must be addressed in a comprehensive model are presented are presented in Table 30.

Table 30

Possible factors contributing to school violence

Media portrayals of violence (Furlong & Morrison, 1994)
School building and class size (Marvin et al., 1976)
Separation of school and community (Toby, 1994)
Poverty and unemployment (Quarels, 1993)
Gang membership (Lal et al., 1993)
Lack of "belonging" to society (Rich, 1981)
Gender roles (Cooper, 1994)
Social learning experiences (Bandura, 1977)
Labeling theory (Rich, 1981)
Expectations, rules and forms of discipline (Marvin et al., 1976)
Relationships between/within groups: parents, teachers and students (Marvin et al., 1976)
Relationship with victim (Evans & Evans, 1985)
Situational determinants (Evans & Evans, 1985)
Social and problem solving skills (Borum, 1996)
Family violence, abuse and neglect (Kurtz et al., 1993)
Genetic influences (McGuffin & Tharpar, 1992)
Developmental factors (Tonkin, 1987)
Neuropsychological factors (Giancola & Zeichner, 1994)
Cognitive factors (Seguin et al., 1995)
Psychopathology

It is interesting to note that Table 30, while listing many of the factors which may be associated with school violence, also provides a comprehensive framework for an assessment of an individual which would include methods such as interviews, observations and standardized testing. Again, this points out the need for diagnosis as the first step in treatment.

The present study used children exhibiting violent behaviors in a school setting as the beginning for evaluation of personality characteristics and found a significant number and variety of psychological concerns for members of the group. An implication of this finding is that the target area for intervention is found during pre-school years for children or during lower elementary grades where patterns of behavior and underlying pathologies are just beginning to develop. Factors such as parenting skills, socioeconomic disadvantages, connections to supports, valuing of education and parent-school relationship in early years may need to be addressed, along with the assessment of children exhibiting tendencies towards violence need to be addressed in a model of prevention. By the time students reach junior and senior high school behavioral patterns are much more fixed, and treatment becomes more difficult. Instruments such as the BASC which have forms for children as young as 4 years of age can be of use in this pursuit. With research indicating a high percentage of prison inmates suffer from a mental disorder (Hodgins and Cote, 1990), early identification and intervention takes on an even greater significance.

The National Association of School Psychologists (NASP*) Position Statement on School Violence* (1997) recognizes that violent behaviors are complex in origin and require multi-faceted approaches to approach this problem. Identification of deficiencies in violent students and providing remedial "treatments", whether through education (such as social skills training) or treatment programs, are seen to be preferable to harsh discipline and zero tolerance policies. The need for violence prevention is also seen to be a community need, and not left only to the schools.

Suggestions For Further Research

Further exploration of the extent to which psychopathology is related to scholl violence is needed. The best form that such a study could take is to identify, diagnose and "treat" a group of violent students based upon their individual psychological problems, comparing the outcome to a generic, broad based approach aimed at treating violent adolescents. Actual use of evaluation techniques such as formal testing (BASC), observation and structured diagnostic interviews by school psychologists needs to be more closely documented. Such practices may place the school psychologist in a role of advisor to school administration regarding violent students, and early intervention has the potential to reduce long term behavioral/antisocial problems for children and adolescents.

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APPENDIX I

Consent Forms

Parent's Letter from School – On School Letterhead

Mr. & Mrs. Parent,
Street Address,
Alberta

Dear Parent,

Along with other school districts in the province, our school board has agreed to participate in a study being conducted by Stephen Carter. Mr. Carter is a Chartered psychologist, with a background as a school counsellor. This study is being done as part of his PhD program in School Psychology.

An attached letter written by Mr. Carter describes his study in more detail. Briefly, what he is intending to do is examine characteristics of students who have exhibited "aggressive" characteristics in school settings. While recent media attention has greatly overplayed problems within Alberta schools, our district feels that assisting with such research can play a preventative role and address an area which is growing in society.

Your permission to participate is voluntary. To preserve confidentiality we are contacting you directly, and if you are willing to take part in the study, you may return this permission slip directly to Mr. Carter in the envelope provided.

Sincerely,

Principal,
XYZ School

Parent's Letter from Researcher

September 5, 1995

Mr. & Mrs. Parent,
Street Address,
Alberta

Dear Parent,

This letter is to describe the study I am doing. I am collecting information from students who have had at least one incident in the past school year where physical force or verbal aggression was involved. While I understand that the media has made "school Violence" a popular and frightening issue, I feel that such instances are greatly overplayed. Instead, I want to study the characteristics of students who may have shown poor problem solving, difficulty controlling reactions or temper, or who may "act out" their feelings.

My interest in this area is to examine a large group of students who have had such difficulties to see if common problem areas exist for them, or if there are several different types of students who get into such situations. If there are, as I suspect, many different types of students who have displayed aggression in school, there are implications that different assistance may need to be provided to different "types" of students.

If you agree to participate in the study, I will be asking that a short questionnaire be filled out by one parent, by one of your son's/daughter's teachers, and by your son/daughter.

All participation is strictly voluntary, and all participants are free to withdraw from the study at any time. As is commonly done with studies such as this, results on a specific individual will not be made available. Each student will be assigned a guarded code number so that responses by the student, parent, and teacher can be compared for a given student, but such information will not be released to anyone.

Parent's Letter from Researcher-2

As this letter has been mailed on my behalf through the school, at this point I am unaware who the school selected to send letters to. If you agree to participate in the study, simply return the consent form in the envelope provided and I will contact you in the near future. If you have any questions that need to be answered first, please contact me at either phone number provided at the end of this letter.

The instruments used for data collection will be three forms from the *"Behavior Assessment Scale for Children"* (BASC). The BASC is a multimethod, multidimensional approach to evaluating behavior and self-perceptions of children aged 4 to 18 years. Multimethod refers to the parallel forms of the BASC which can be filled out by the student (in approximately 30 minutes), the parent (in 10 to 20 minutes) and teachers (in 10 to 20 minutes). It is multidimensional in that it measures numerous aspects of behavior and personality, including positive (adaptive) behaviors.

Confidentiality will be ensured throughout the study - even your daughter's/son's school system will never be referred to in any published results. My actual dissertation will only state that Junior High students and their parents and teachers from rural, urban, and suburban schools in Alberta took part in the study.

Once my study is complete, I will notify all participants of an "information night" at which results and conclusions will be presented.

Please fill out and return the attached consent form.

Sincerely,

Stephen Carter, M.Ed.,
Chartered Psychologist (Alberta registration #2065)

Phone: 990-6222

Parent's Letter from Researcher-3

Consent to participate in the study:

I, _____ agree to participate in the study being
(Print name)
carried out by Stephen Carter.

I have been given and understand the information letter describing the study and am aware that my participation is strictly voluntary, and that I may withdraw from the study at any time.

_____ _____
(Signature) (Date)

I, _____ agree to allow my child,
(Print name)

_____ to participate in the study being
(Print name of student)

carried out by Stephen Carter.

I am aware that my child's participation is strictly voluntary, that it depends on both my consent as parent/guardian, and my child's consent, and either party may chose to withdraw consent and no longer partake in the study at any time.

_____ _____
(Signature of Parent/Guardian) (Date)

Teacher's Letter from Researcher

September 5, 1995

Teacher,
XYZ Junior High School
Street Address,
Alberta

Dear Teacher

This letter is to follow-up our conversation with regards to taking part in the study I am doing. I am collecting information from students who have had at least one incident in the past school year where physical force or verbal aggression was involved.

My interest in this area is to examine a large group of students who have had such difficulties to see if common problem areas exist for them, or if there are several different types of students who get into such situations. If there are, as I suspect, many different types of students who have displayed aggression in school, there are implications that different assistance may need to be provided to different "types" of students.

If you agree to participate in the study, I will be asking you to fill out a short questionnaire.

All participation is strictly voluntary, and all participants are free to withdraw from the study at any time. As is commonly done with studies such as this, results on a specific individual will not be made available. Each student will be assigned a guarded code number so that responses by the student, parent, and teacher can be compared for a given student, but such information will not be released to anyone.

Teacher's Letter from Researcher-2

The instruments used for data collection will be three forms from the *"Behavior Assessment Scale for Children"* (BASC). The BASC is a multimethod, multidimensional approach to evaluating behavior and self-perceptions of children aged 4 to 18 years. Multimethod refers to the parallel forms of the BASC which can be filled out by the student (in approximately 30 minutes), the parent (in 10 to 20 minutes) and teachers (in 10 to 20 minutes). It is multidimensional in that it measures numerous aspects of behavior and personality, including positive (adaptive) as well as negative (clinical) dimensions.

Confidentiality will be ensured throughout the study - even your school system will never be referred to in any published results. My actual dissertation will only state that Junior High students and their parents and teachers from rural, urban, and suburban schools in Alberta took part in the study.

Once my study is complete, I will notify all participants of an "information night" at which results and conclusions will be presented.

Please fill out an return the attached consent form.

Sincerely,

Stephen Carter, B.Ed., M.Ed.,
Chartered Psychologist (Alberta registration #2065)

Phone: 990-6222

Teacher's Letter from Researcher-3

Consent to participate in the study:

I, _____ agree to participate in the
(Print name)

study being carried out by Stephen Carter by filling out a survey

that describes my observations of the following named student:

_____
(Print name of student)

I have been given and understand the information letter describing the study and am

aware that my participation is strictly voluntary, and that I may withdraw from the study

at any time.

_____ _____
(Signature) (Date)

Student's Letter from Researcher

September 5, 1995

Student name,
Street Address,
Alberta

Dear Student,

This letter is to follow-up our conversation with regards to taking part in the study I am doing. You were selected for the study because you have had at least one incident in the past school year where physical force or verbal aggression was involved.

My interest in this area is to examine a large group of students who have had such difficulties to see if common problem areas exist for them, or if there are several different types of students who get into such situations.

All participation is strictly voluntary, and all participants are free to withdraw from the study at any time. You may refuse to take part in the study even if your parents have agreed. No one will ever know what your answers to the questionnaire are - I am testing 100 Junior High students and results will be put together into groups.

Once my study is complete, I will notify all participants of an "information night" at which results and conclusions will be presented.

Please fill out and return the attached consent form.

Sincerely,

Stephen Carter, M.Ed.,
Chartered Psychologist

Student's Letter from Researcher-2

Consent to participate in the study:

I, _____ agree to participate in the study being
(Print name)

carried out by Stephen Carter.

I have been given and understand the information letter

describing the study and am aware that my participation is strictly

voluntary, and that I may withdraw from the study at any time.

_____ _____
(Signature) (Date)

APPENDIX II

Reliability Statisitcs for the BASC

Internal Consistency of the BASC

Coefficient Alpha Reliabilities	Individual Scales Range (Mean)	Composite Scales Range (Mean)
TRS General Norm Group	0.73 – 0.95 (0.87)	0.90 – 0.97 (0.95)
TRS Clinical Norm Group	0.70 – 0.94 (0.83)	0.90 – 0.95 (0.93)
PRS General Norm Group	0.60 – 0.87 (0.76)	0.85 – 0.94 (0.89)
PRS Clinical Norm Group	0.74 – 0.89 (0.82)	0.91 – 0.94 (0.93)
SRP General Norm Group	0.62 – 0.88 (0.78)	0.86 – 0.95 (0.92)
SRP Clinical Norm Group	0.64 – 0.89 (0.80)	0.91 – 0.96 (0.93)

Test-Retest Reliability of the BASC

Following a 2 – 8 week interval between tests

r^a	Individual Scales Range (Mean)	Composite Scales Range (Mean)
TRS General Norm Group	0.70 – 0.89 (0.81)	0.83 – 0.89 (0.87)
PRS General Norm Group	0.41 – 0.77 (0.66)	0.71 – 0.75 (0.73)
SRP General Norm Group	0.69 – 0.85 (0.76)	0.81 – 0.86 (0.84)

APPENDIX III

Structured Interview for Diagnostic Assessment of Children – Revised

STRUCTURED INTERVIEW FOR DIAGNOSTIC ASSESSMENT OF CHILDREN-REVISED

Name of Child: _____

Informants Name: _____ **Relation to Child:** _____

Rater(s) Name(s): (1) _____ **(2)** _____

Date of Interview: _____, 19____. **[Initial** _____ **Follow-up** _____**]**

I. For initial assessment:

A. Previous Treatment (Parent Only)

1."Has _____ ever seen a doctor, or a psychologist or a counselor, or gone to a mental health center for any kind of emotional or behavior problem?" _____ If yes, when? _____ How frequently? For how long?
_____

2. Medication? What kind? When? For how long? _____
_____

3. Psychiatric inpatient hospitalization? _____ When? How long?
_____

Unstructured Interview (Parent Only)

"Could you tell me in your own words why you've brought _____ here today? What kind of concerns do you have about him/her?"

II. **For follow-up assessment**: Ask about medications and hospitalizations since first assessment (I); then go to III, phrasing questions about the time since first assessments-- about two years ago.

*The SIDAC-R is modified and updated to include DSM -IV symptoms/disorders. It is a version of the K-SADS (Puig-Antich & Chambers, 1978) and SIDAC (DSM III and DSM IIIR symptoms).

III. Structured Interview

Use mother (M), child (C), and teacher (T) as informant to reach a resolution (R) decision on the presence/absence of each symptom based on these sources of information.

A. Major Depression

"Okay, now I want to ask a number of specific questions about problems that _____ might be having. I want you to try and answer these questions with a yes or no answer depending on whether or not you think that_____ (has) (have) had any of these problems during the past year, the last 12 months (2 years for follow-ups) including now, to the extent that it was pretty uncomfortable for _____ or caused some problems for teachers, parents, other children, or anyone else. First, I'll ask some questions about _____('s) mood."

"Have there been times that lasted nearly every day for at least two weeks when he/she/you:"

1.	Felt sad, blue, down, low, hopeless, or depressed most of the day? Was he/she irritable? (To parent or teacher: "Looked or said he/she felt . . .)	M C T R
2.	Didn't seem to enjoy or be interested in most or all of the things that (he/she/you) used to enjoy?	M C T R
	[If no to 1 and 2, skip to DYSTHYMIC DISORDER.]	
3.	Lost a noticeable amount of weight or had a decrease in appetite nearly every day? Or did not make expected weight gains?	M C T R
4.	Had a hard time falling asleep or staying asleep, or slept quite a bit more than usual?	M C T R
5.	Was noticeably more restless and active or seemed to be slowed down nearly every day?	M C T R
6.	Seemed to be tired most of the time and didn't have much energy?	M C T R
7.	Seemed to feel worthless or very guilty about something nearly every day? (If guilty, what did he/she feel guilty about?)	M C T R
8.	Seemed to have a harder time concentrating on schoolwork and other tasks than usual, or seemed to have a harder time making decisions than usual?	M C T R
9.	Had frequent thoughts about death of (him/herself), or someone else, or wished to be dead, or thought about suicide (no plan)? Or made an attempt at suicide?	M C T R

Criteria for MDE (DSM-IV)

1. Meets all exclusionary criteria.

2. Had 5 or more symptoms during same 2 week period, at least one of which must be 1 or 2. (Queried by asking, after the first affirmative response to a symptom, "During the same time that he/she experienced _____, did he/she also . . .")

Meets DSM-IV criteria for MDE? YES NO

B. **Dysthymic Disorder**

If was described as dyphoric, and did not meet criteria for MDE, ask:

1.	"Do you think _____ has (have) felt sad, blue, depressed more days than not for the past year (for follow-ups: for at least one year during the past 2 years)? Or has (have) _____ had an irritable mood for more days than not over the past year?"	M C T R
	If yes, "During that time was (were) _____ bothered by:	
2.	Poor appetite or overeating?	M C T R
3.	Cannot sleep or sleeps too much (insomnia or hypersomnia)?	M C T R
4.	Low energy or fatigue?	M C T R
5.	Feeling inadequate (low self-esteem)?	M C T R
6.	Poor concentration or difficulty making decisions?	M C T R
7.	Feelings of hopelessness?	M C T R

DSM-IV Criteria for Dysthymic Disorder

1. Meets all age and exclusionary criteria.

2. Meets question 1 and at least 2 of the other symptoms from questions 2 through 7.

Meets DSM-IV Criteria for Dysthymia? YES NO

C. **Attention - Deficit Hyperactivity Disorders**

"Has (have) _____ had any of the following problems for at least the last 6 months to the degree that it is maladaptive and consistent with _____ developmental level?"

Inattention Items:

(I)	1.	Does not pay close attention to details or makes careless mistakes at school or in other activites?	M C T R
	2.	Has difficulty concentrating or paying attention long enough to do schoolwork, homework, or chores?	M C T R
	3.	Often doesn't seem to listen to what's being said to (him/her/you) when spoken to directly?	M C T R
	4.	Often does not follow through on instuctions and has difficulty finishing schoolwork, homework, or chores in a reasonable amount of time (not due to oppositional behaviour or failure to understand directions)?	M C T R
	5.	Often cannot seem to organize (his/her/your) tasks or activities?	M C T R
	6.	Often avoids, dislikes, or is reluctant to attempt things that require sustained mental effort (schoolwork, homework)?	M C T R
	7.	Often loses things like toys, books or other school supplies that are needed for the task at hand?	M C T R
	8.	Is easily distracted by unimportant things: like being distracted more than most (boys/girls) (his/her/your) age by unimportant noises when tryingto study?	M C T R
	9.	Is often forgetful in daily activities?	M C T R

Hyperactivity Items:

(II)	1.	Often fidgets with (his/her/your) hands or feet when seated or squirms in (his/her/your) seat quite a bit more than most (boys/girls) (his/her/your) age?	M C T R
	2.	Often has difficulty remaining seated when (he/she/you) is supposed to - like during class or during meals?	M C T R
	3.	Often runs around or climbs on things quite a bit more than other (boys/girls) (his/her/your) age?	M C T R
	4.	Often has a harder time playing quietly than most (girls/boys) (her/his/your) age?	M C T R

5. Seems to be a child who is "always on the go" or seems seems to be driven by a motor inside that keeps (him/her /you) moving? M C T R

6. Does (do) (she/he/you) talk excessively? M C T R

Impulsivity Items

7. Often blurts out an answer to a question before (he/she /you) has heard the entire question? M C T R

8. Has a hard time waiting for (his/her/your) turn in games or group activities? M C T R

9. Often interrupts other children or adults or butts into other children's conversations or games? M C T R

When did this (recap the child's qualifying symptoms) begin? Before age seven? _____

DSM-IV Criteria for Attention-Deficit/Hyperactivity Disorder

1. Meets all age and exclusionary criteria.

2. Six (or more) of the symptoms in (I) or (II) that have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level.

3. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

4. Some impairment from the symptoms is present in two or more settings.

DMS-IV Criteria for Attention-Deficit/Hyperactivity Disorder, Combined Type

1. If both (I) and (II) are met for the past 6 months

DSM-IV Criteria for Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type

1. If (I) is met but (II) is not met for the past 6 months.

DSM-IV Criteria for Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type

1. If (II) is met but (I) has not been met for the past 6 months.

ADHD (NOS) : Disorders with prominent symptoms of inattention or hyperactivity - impulsibity that do not meet criteria for Attention - Deficit / Hyperactivity Disorder.

Meets DSM-IV Criteria for ADHD? YES NO

D. Oppositional Defiant Disorder

"Has/have _____ had any of the following problems for at least the last 6 months?"

1.	Often loses (his/her) temper?	M C T R
2.	Often argue(s) with adults?	M C T R
3.	Often actively defies or refuses to comply with adults' requests or rules, like refusing to do chores at home?	M C T R
4.	Often deliberately does things that annoy other people?	M C T R
5.	Often blames others for his or her mistakes or misbehavior?	M C T R
6.	Is often touchy or easily annoyed by others?	M C T R
7.	Is often angry and resentful?	M C T R
8.	Is often spiteful or vindictive?	M C T R

DSM-IV Criteria for Oppositional Defiant Disorder

1. Meets all age and exclusionary creiteria.

2. A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which four (or more) of the above are present.

3. The disturbance in behavior causes clinically significant impairments in social or academic functioning.

4. Criteria are not met for Conduct Disorder.

Meets the DSM-IV Criteria for Oppositonal Defiant Disorder? YES NO

E. Conduct Disorder

"Has (have) _____ had any of the following problems for at least the last six months?"

Aggression to people and animals

(I)	1.	Often bullies, threatens, or intimidates others?	M C T R
	2.	Often initates physical fights?	M C T R
	3.	Has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)?	M C T R

	4.	Has been physically cruel to people?	M C T R
	5.	Has been physically cruel to animals?	M C T R
	6.	Has stolen while confronting a victim (e.g.mugging, purse snatching, extortion, armed robbery)?	M C T R
	7.	Has forced someone into sexual activity?	M C T R
		Distruction of property	
(II)	8.	Has deliberately engaged in fire setting with the intention of causing serious damage?	M C T R
	9.	Has deliberately destroyed others' property (other than by fire setting)?	M C T R
		Deceitfulness or theft	
(III)	10.	Has broken into someone else's house, building, or car?	M C T R
	11.	Often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others)?	M C T R
	12.	Has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)?	M C T R
		Serious violations of rules	
(IV)	13.	Often stays out at night despite parental restrictions, beginning before age 13 years?	M C T R
	14.	Has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lenghty period)?	M C T R
	15.	Is truant - skips school - beginning before age 13 years?	M C T R

DSM-IV Criteria for Conduct Disorder

1. Meets all age and exclusionary criteria..

2. A repetitive and perisitent pattern of bahavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the criteria in I, II, III, and IV in the past 12 months, with at least one criterion present in the past 6 months.

Meets DSM-IV Criteria for Conduct Disorder YES NO

F. Separation Anxiety Disorder

"During the past year, has (have) _____ had any of these problems occuring that last (ed) at least 4 weeks?"

1.	Worried a lot of the time when separated from (his/her/your) home or separation from a (major attachment figure) occurs or when such a separation is anticipated?	M C T R
2.	Worried a lot of the time about losing, or about possible harm befalling, a (major attachment figure) (eg. hurt in a bad accident)?	M C T R
3.	Worried a lot of the time that an untoward event will lead to separation from a (major attachment figure) (e.g., getting lost or being kidnapped)?	M C T R
4.	Really didn't want to go to school or refused to go to school and instead wanted to stay with (his/her/your) (attachment figure)?	M C T R
5.	Really didn't want to be alone - followed (his/her/your) (attachment figure) around or had to be with someone else?	M C T R
6.	Really didn't want to go to sleep without (attachment figure) next to (him/her/you) or to sleep away from home?	M C T R
7.	Had a lot of upsetting nightmares? What about? (Mark yes only if theme involved loss or separation from figure)	M C T R
8.	Repeated complaints of headaches, stomach aches, nausea, or vomitting when separation from (major attachment figures) occurs or is anticipated?	M C T R

DSM-IV Criteria for Separation Anxiety Disorder

1. Meets all age and exclusionary criteria.

2. Developmentally inappropriate and excessive anxiety concerning separation from home or from those to whom the individual is attached as evidenced by three (or more) of the criteria.

Meets DSM-IV criteria for Separation Anxiety Disorder? YES NO

G. Overanxious Disorder

"During the past year, has there been a time that lasted for more days than not, over at least a six month period during which _____ had any of the following problems at about the same time?"

(I)	1.	Is restless or feels keyed up or is on edge?	M C T R
	2.	Is easily fatigued?	M C T R
	3.	Has difficulty concentrating or (his/her) mind goes blank?	M C T R
	4.	Is irritable?	M C T R
	5.	Has muscle tension?	M C T R
	6.	Has sleep problems (difficulty falling or staying asleep, or restless unsatisfying sleep)?	M C T R

DSM-IV Criteria for Overanxious Disorder

1. Meets all age and exclusionary criteria..

2. Excessive anxiety and worry occurring more days than not for at least 6 months, about a number of events or activities (such as school performance).

3. The person finds it difficult to control the worry.

Meets the DSM-IV Criteria for Overanxious Disorder? YES N0

H. Psychotic Symptomatology

"During the past year has (have) _____ experienced any of the following?"

(I)	1.	Hearing voices talking to you or about you that other people didn't think were really there? What did the voice say? (Mark Yes only if other than name calling or heard only upon awakening).	M C T R
	2.	Seeing, feeling, smelling or tasting things that other people didn't think were really there?	M C T R
	3.	Having ideas about things that other people would or did think were highly strange or bizare? What kind of ideas?	M C T R
	4.	People not being able to understand what _____ said a lot of the time?	M C T R

If YES to one or more of the above, assess for psychotic disorders

Diagnostic Summation:

DSM IV Diagnoses	Interrater Agreement and Resolutions

APPENDIX IV

Correlations within the BASC TRS, PRS and SRP obtained in this study.

Correlations within the BASC Teacher Rating Scale
(N=54)

	Hyper	Aggr.	Cond.	Anx.	Dep.	Som	Attn.	Lrn.	Aty.	Wth	Soc	Lead	Study
Hyperactivity	1.00												
Aggression	.60*	1.00											
Conduct problems	.39*	.65*	1.00										
Anxiety	.23	.18	.12	1.00									
Depression	.57*	.46*	.35*	.48*	1.00								
Somatization	.38*	.29*	.34*	.51*	.53*	1.00							
Attention Prob.	.52*	.33*	.26	.20	.45*	.16	1.00						
Learning prob.	.31*	.17	.18	.39*	.41*	.09	.50*	1.00					
Atypicality	.62*	.47*	.47*	.32*	.67*	.44*	.46*	.31*	1.00				
Withdrawal	-.01	.03	.07	.09	.31*	.18	.14	.10	.32*	1.00			
Social Skills	.17	.43*	.49*	-.16	.19	-.09	.29*	.22	.27	.35*	1.00		
Leadership	.07	-.03	.10	.03	.17	.02	.45*	.35*	.14	.32*	.40*	1.00	
Study Skills	.14	.28*	.26	-.01	.20	-.07	.62*	.44*	.20	.40*	.45*	.45*	1.00

*p<.05

Correlations within the BASC Parent Rating Scale
(N=54)

	Hyper	Aggr.	Cond.	Anx.	Dep.	Som	Aty.	Wth	Atten.	Soc	Lead
Hyperactivity	1.00										
Aggression	.42*	1.00									
Conduct Prob.	.25	.41*	1.00								
Anxiety	.58*	.39*	.25	1.00							
Depression	.79*	.52*	.39*	.77*	1.00						
Somatization	.36*	.10	.01	.49*	.46*	1.00					
Atypicality	.68*	.52*	.24	.59*	.69*	.47*	1.00				
Withdrawal	.26	.33*	.11	.52*	.48*	.13	.31*	1.00			
Attention Prob.	.69*	.42*	.33*	.51*	.63*	.28*	.55*	.32*	1.00		
Social Skills	.24	.48*	.43*	.41*	.36*	-.10	.37*	.52*	.43*	1.00	
Leadership	.25	.32*	.20	.47*	.38*	.12	.39*	.56*	.34*	.74*	1.00

*p<.05

Correlations within the BASC Self Report of Personality
(N=54)

	Sch	Tch	Sen	Aty	Loc	Som	Str	Anx	Dep	Ina	Par	Int	Est
Attitude to School	1.00												
Attitude to Teach	.64*	1.00											
Sensation Seeking	.44*	.37*	1.000										
Atypicality	.24	.22	.40*	1.00									
Locus of Control	.29*	.40*	.34*	.72*	1.00								
Somatization	.33*	.21	.05	.67*	.58*	1.00							
Social Stress	.09	.12	.03	.60*	.63*	.60*	1.00						
Anxiety	.02	.06	-.03	.56*	.44*	.46*	.69*	1.00					
Depression	.32*	.34*	.26	.56*	.70*	.60*	.68*	.53*	1.00				
Sense of Inadeq.	.33*	.40*	.25	.47*	.59*	.50*	.61*	.45*	.71*	1.00			
Relations - parents	.28*	.45*	.26	.38*	.55*	.34*	.31*	.10	.43*	.25	1.00		
Interpersonal	-.07	.06	-.31*	.23	.35*	.33*	.62*	.42*	.47*	.34*	.26	1.00	
Self-Esteem	.19	.11	.13	.20	.26	.38*	.62*	.44*	.47*	.31*	.18	.46*	1.00
Self-Reliance	.18	.20	.10	.15	.32*	.30*	.21	-.10	.30*	.28*	.51*	.32*	.02

*p<.05